

AVELLAR MERÇON DE VARGAS, ELISA, Ph.D. Children's Expressions of Gratitude and their Association with Cultural Values among Brazilians, Brazilians in the U. S., and U.S. Ethnic Groups. (2017)

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Gratitude has mostly been studied as a positive emotion, although scholars have suggested that this conceptualization is confounded with appreciation. In contrast, I define gratitude as a moral virtue; it occurs when one person receives a freely given benefit, recognizes the intentionality of the benefactor, and *freely wishes to repay* with something of benefit to the benefactor. Gratitude as a moral virtue involves autonomy and relatedness. The cultural dimensions proposed by Kağıtçıbaşı's (2007) were used here to understand potential cultural variations in the expression of gratitude.

The present study aimed to investigate associations between parents' values and children's wishes with expressions of gratitude across both societies and groups within the United States. Children (aged 7 to 14) answered two open-ended questions: "What is your greatest wish?" and "What would you do for the person who granted you this wish?" Answers to the first question were categorized as (a) hedonistic, (b) self-, and (c) social-oriented wishes. Those to the second question were categorized as (a) verbal, (b) concrete, and (c) connective gratitude. Parents completed a questionnaire of values for their children with four sub-scales (autonomy, heteronomy, relatedness, and separateness).

First, I conducted factor and mean structure analyses to examine differences and similarities in parents' values within the U. S. (187 European American, 126 African American, 107 Brazilian immigrants, and 102 Hispanics) and across societies (192 Brazilian, 187 European American, and 107 Brazilian immigrants). Secondly, I used multi-group latent class analysis to explore differences in children's expressions of gratitude across ethnic groups ( $N = 467$ ; 148 European Americans, 110 Brazilians in the U. S., 106 Hispanics, and 103 African Americans)

and societies ( $N = 614$ ; 274 from Greensboro, 230 from Porto Alegre, and 110 Brazilian immigrants). Finally, I used multinomial logistic regression to explore associations of children's wishes and parental values with children's expressions of gratitude.

Contrary to what I had expected, Brazilian parents (in the home country and in the United States) scored higher on autonomy than did European Americans; also, Brazilians in the U. S. scored higher in heteronomy than did European Americans and Brazilians. However, all these groups scored higher in both relatedness and autonomy than in heteronomy. Regarding gratitude expressions, with wishes as predictors, Brazilians in the U. S. were more likely than were European Americans to express gratitude verbally than concretely. Brazilians in their home country seemed to be more likely than were other groups to express more than one type of gratitude at the same time. Children expressing hedonistic wishes were less likely to express connective rather than verbal gratitude (for European Americans), and connective rather than verbal and concrete gratitude (for Brazilians in the U. S.). For African Americans, expressing verbal rather than concrete gratitude buffered the expression of hedonistic wishes.

Finally, heteronomy was associated with the expression of verbal rather than concrete gratitude for Hispanics and Brazilians in their home country, suggesting a link between valuing to follow societal norms and expressing thanks verbally for those groups. In conclusion, this study advances research on gratitude by considering it as a moral virtue rather than simple appreciation. It also contributes for the knowledge in this topic, given that it includes a diverse sample drawn both from the United States and a non-Western country. Overall, the present study showed both similarities and differences in parental values and children's gratitude expressions and their relations with children's values (hedonistic, self-, and social oriented).

CHILDREN'S EXPRESSIONS OF GRATITUDE AND THEIR ASSOCIATION WITH  
CULTURAL VALUES AMONG BRAZILIANS, BRAZILIANS IN  
THE U. S., AND U.S. ETHNIC GROUPS

by

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## CHAPTER I

### INTRODUCTION

Gratitude has mostly been conceptualized as a tendency to recognize and respond with grateful emotion to positive experiences, and has been found to be related to outcomes, such as life satisfaction and well-being (McCullough, Emmons, & Tsang, 2002). However, greater attention has been given to issues in this conceptualization, with scholars claiming that this concept is too broad and, in fact, represents “appreciation” (Fagley, 2016; Tudge, Freitas, O’Brien, 2015). A contrasting view, adopted in this dissertation, suggests that gratitude is a moral virtue, emphasizing its interpersonal aspects. This distinction is important because gratitude as a positive emotion focuses on the feelings triggered by a benefit/experience on a personal level and the positive outcomes of it mostly for one’s own well-being.

As a moral virtue, gratitude occurs when one person (the beneficiary) receives a freely given benefit (a gift, favor, help, etc.) from another (the benefactor), recognizes the intentionality of the benefactor, and *freely wishes to reciprocate* with something of value to the benefactor—that is, considering others’ point of view (Gulliford, Morgan, & Kristjánsson, 2013; McConnell, 1993; McCullough, Kimeldorf, & Cohen, 2008; Tudge, Freitas, & O’Brien, 2015). From this perspective, the most important element in defining gratitude is to whom someone is grateful, and not for what someone is grateful (Fagley, 2016). Further than that, this conceptualization stresses the need to consider an autonomous sense of reciprocation. It involves being happily willing to reciprocate (Roberts, 2016), whenever possible, to whomever one is grateful to.

Studies addressing the development of moral virtues are crucial because they contribute to understand the genesis of morality and character building. Thus, investigating how gratitude as

a moral virtue develops may shed light on how the moral personality develops and the socio-cognitive processes involved in this process. This is important because the moral obligation involved in gratitude is positively regarded by most people and cultures, which, then, serves as a standard of a desirable character to be encouraged and developed in children (La Taille, 2000, in press).

Aspects involved in moral virtue gratitude—such as, taking others’ perspective into account and autonomously wishing to reciprocate—are linked to the development of social-cognitive abilities reflected, for example, on a decentration of the self; this process takes place throughout development within interactions with adults and peers (Freitas, O’Brien, Nelson, & Marcovitch, 2012; Nelson et al., 2013; Piaget, 1965/1995). Gratitude is also likely to create and/or strengthen close connections with others (Algoe, Haidt, & Gable, 2008; Bartlett & DeSteno, 2006; Tudge, Freitas, Mokrova, Wang, & O’Brien, 2015), although this association may vary across cultures (Wang, Wang, & Tudge, 2015).

Even though scholars in other countries, including Brazil, have also demonstrated some interest in studying gratitude, most empirical studies on this topic have been conducted in the United States (U. S.), and usually a universality of findings is implicitly assumed. This is especially problematic given that the U. S. represents only 5% of the world’s population (Arnett, 2008). So, there is still a lack of understanding about the cultural influences on gratitude.

Moreover, studies conducted with North American samples usually overlook variations across groups within the U. S., by either not including an ethnic and socioeconomically (SES) diverse sample, or simply grouping them together as representing the population of interest. Even when ethnicity or SES is used as a variable, little attempt is made to understand the reason for any ethnic or SES variation. Besides that, no study so far has addressed the development of gratitude

among immigrant children in the U. S., especially in comparison to their counterparts who remained in the home country, despite the prominent role immigration plays in children's life.

In fact, studies addressing gratitude among children and adolescents have only recently caught scholars' attention (e.g., Castro, Rava, Hoefelmann, Pieta, & Freitas, 2011; Freitas et al., 2012; Freitas, Pieta, & Tudge, 2011; Froh, Fan et al., 2011). Not surprisingly, then, little consideration has been given to potential social factors contributing to children's development of gratitude, such as the role of parental and children's values, and variations of those across and within societies. As with the study of gratitude in general, the few studies looking at parental influence on children's gratitude do not include a diverse sample (e.g., Halberstadt et al., 2016; Hoy, Suldo, & Mendez, 2013; Rothenberg et al., 2016), precluding the understanding of gratitude as related to cultural values.

Overall, the investigation of different cultural groups (both across and within societies) is important to understand in which ways gratitude is expressed and develops differently or similarly. Beyond that, it is critical to understand the mechanisms involved in these differences or similarities, such as how parents' values may influence children's gratitude and how values oriented to material possessions or non-material aspects are linked to gratitude across cultures. Thus, assessing how cultural values matter to children's gratitude is fundamental, because it helps to disentangle how contexts operate, and does not take differences of cultural groups for granted (such as simply using the society or ethnic group as a proxy for cultural values).

One of the most common frameworks to study child development from a cultural perspective is the use of a dichotomous approach, individualism–collectivism, to indicate cultural differences (Hofstede, 2001/1980; Triandis, 1989, 1993, 2001). Nonetheless, this unidimensional model has been critiqued, in some instances because it provides a single “individualism” score for

societies, ignoring within-society variability (Oyserman, Coon, & Kemmelmeier, 2002; Strauss, 2000; Tamis-LeMonda et al., 2008; Tudge et al., in press).

However, several studies have demonstrated that considering within-society variability is important for countries like the U. S. and Brazil (e.g., Coon & Kemmelmeier, 2001; Seidl-de-Moura et al., 2008, 2013a, 2013b; Suizzo, 2007; Tudge et al., in press; Vieira et al., 2010). Thus, some scholars (Kağıtçıbaşı, 2007; Keller, 2007) have critiqued the unidimensional model as being too simplistic, while at the same time providing both theoretical and empirical backing for a certain type of within-society variability.

Kağıtçıbaşı's (2007) theory unpacks individualism and collectivism—the first comprising both an agentic component (autonomy) and a lack of strong ties to others outside the immediate family (separateness), and the second confounding strong ties with the group (relatedness) and being subject to elders' rules (heteronomy). She, thus, views one dimension as agency (autonomy–heteronomy) and an orthogonal dimension as interpersonal distance (related–separate). She holds that countries like the U. S. and those in Western Europe would value predominantly autonomy-separateness. Traditional cultural groups in the “Majority World” (developing societies, which compose the majority of countries) would value predominantly relatedness-heteronomy, and urbanized and educated groups in the Majority World would value predominantly autonomy-relatedness. From this theoretical perspective, then, values such as autonomy and relatedness are not opposites and can coexist.

Although Kağıtçıbaşı (2007) proposed these as predominant values for societies (prototypical), her perspective allows for more cultural variations, given that it considers two cultural dimensions varying in degrees. This can be seen, for example, in variations of values related to SES in Brazil (e.g., Seidl-de-Moura et al., 2008, 2013a, 2013b; Tudge et al., in press;

Vieira et al., 2010) and ethnic groups in the U. S. (e.g., Coon & Kemmelmeier, 2001; Suizzo, 2007).

In general, thus, Kağıtçıbaşı (2007) suggested that her approach could be used to show that there are different types of selves in relation to agency and interpersonal distance, which will then impact several psychological functions, including morality. Furthermore, her perspective can be used to understand how parental socialization values engender different selves and why certain socialization values are found predominantly in a given context, but to a lesser extent in others.

Based on that, the cultural values (or combination of values), proposed by Kağıtçıbaşı's (2007), may serve as a cultural framework to understand how values influence children's gratitude. It is possible that children who are encouraged to think and act in a more self-directed way (autonomously), as well as considering the social group (relatedness), will then express gratitude considering others' points of view and wishing to reciprocate autonomously, if possible (and not because they were told so). These assumptions are based on the idea that gratitude as a moral virtue requires both autonomous thinking and a sense of connection with others.

Drawing on these ideas, the main goals of this study are: (a) to investigate parental values' similarities and differences across four ethnic groups within the United States (European Americans, African Americans, Hispanics, and Brazilian immigrants) and across societies (Brazilians immigrants, Brazilians in their home country, and North Americans); (b) to explore differences in children's (aged 7 to 14) expression of gratitude across ethnic groups and societies; (c) to examine associations between children's gratitude and their wishes as reflecting hedonistic, self-, and social-orientated values across ethnic groups and societies; and (d) to explore associations between parental values for their children (autonomy, heteronomy, relatedness, and separateness) and children's gratitude across ethnic groups and societies.

The approach used here is important because it not only addresses variations in children's expressions of gratitude across and within societies, but also aims to understand why these contexts may impact gratitude similarly or differently by measuring values culturally informed (e.g., parental values for their children and children's hedonistic, self-, or other-directed values). Accordingly, this research addresses the expression of gratitude from a cultural perspective, which contributes to a greater comprehension of the conditions in which the relation between cultural values and gratitude matters.

The present dissertation is composed of six chapters: Chapter 2 reviews the literature on the conceptualization and operationalization of gratitude and what is known about the development of, and cultural influences on gratitude. Then, given my interest in children's wishes as reflecting values, the conceptualization and operationalization of materialism is addressed, as well as the development and cultural variation of materialism (linked to hedonistic values) and other life aspirations; the relations between gratitude and materialism are also addressed. Next, I discuss the context of immigration in the U. S., situating Brazilian immigrants within this context, also considering important aspects of cultural values, ethnic socialization, and acculturation. In Chapter 3, I discuss Kağıtçıbaşı's perspective of Culture and Self, including its links with cultural variations, and parenting as a mechanism through which the self develops. Furthermore, I will consider how her ideas and propositions can be applied to the study of immigrant groups and within-society groups. In Chapter 4, I outline the methodological strategies employed here, including sampling and data collection procedures, sample characteristics, and analytic strategies. In Chapter 5, the results are presented in four blocks reflecting the main goals and research questions of this study. Finally, in Chapter 6, I discuss the findings of this study, addressing some limitations and future directions, and provide some conclusions.



## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Conceptualizing Gratitude**

To understand what is known about gratitude, it is necessary to consider how it has been conceptualized and operationalized, and the implications of different approaches to the study of gratitude, especially in relation to the development of gratitude and cultural variations. Overall, there are two predominant conceptualizations of gratitude in the literature that will be reviewed here: (a) gratitude as a positive emotion, which celebrates gratitude as a pleasant momentary emotion that contributes to various personal resources (linked to the upsurge of positive psychology) and (b) gratitude as a moral virtue, in which gratitude is viewed as a part of someone's character and is deemed to be culturally praiseworthy (addressed mostly by philosophers and some psychologists).

There are several aspects distinguishing these ways of conceptualizing gratitude, including whether gratitude is viewed as a **three-part** or a **two-part** concept (Carr, 2015; Gulliford et al., 2013; Kristjánsson, 2013). Gratitude as an emotion is linked to a two-part perspective, in which gratitude does not need reciprocation toward a benefactor, as what counts is the feeling triggered by receiving or experiencing a benefit or a positive event. From a three-part standpoint, three necessary elements are involved in gratitude: the beneficiary, the benefit, and the benefactor to whom the beneficiary is grateful. Most important, the beneficiary's willingness to reciprocate (if possible) the benefactor freely and intentionally is key to this conceptualization (McConnell, 1993; Tudge, Freitas, O'Brien, 2015).

Moreover, gratitude, as an emotion, is considered an emotional responsive state to what someone experiences in the moment (even when considering a disposition to respond emotionally in a certain way). In contrast, gratitude as a moral virtue is considered a lasting feature of a person's character linked to both how they feel and behave toward the benefactor across situations. Thus, an important distinction between gratitude as an emotion and as a virtue is that the former is linked to simply feeling in a certain way (and maybe includes some behaviors, such as smiling) and the latter is related to both feeling and behaving toward others in a consistent way. Feeling without behavior can be considered appreciation, and behaving without feeling may be related to politeness or heteronomous obligations (doing because you were told so) (Tudge, Freitas, O'Brien, 2015).

This divergence in the concepts of gratitude is reflected in the operationalization of gratitude (how gratitude is measured) and in the main purposes of studying gratitude, and impacts what is known about gratitude in empirical studies. Studies in which gratitude is viewed as a positive emotion focus on different levels of gratitude (being more or less grateful for other people, experiences, or for one's quality of life) and seek to understand the association between these different levels and well-being, prosocial behaviors, depression, etc. From this perspective, the consequences of emotion gratitude are linked mostly to benefits to oneself, and do not necessarily involve others.

Gratitude as a moral virtue, on the other hand, focuses on gratitude **to** (rather than **for**) others (Fagley, 2016), and includes the idea that a grateful individual should freely wish to reciprocate the benefactor (that is, it involves a moral obligation). Thus, it is necessarily interpersonal (even if only on a hypothetical level). A consistent disposition to autonomously wish to reciprocate for what is gained is part of someone's core characteristics. This last approach also considers that there are less complex ways of expressing gratitude occurring across

developmental stages (which may be considered precedents or rudimentary forms of gratitude). To the extent to which cultures encourage different values, the expression of gratitude will also vary (Gulliford et al., 2013; Kristjánsson, 2013; Tudge, Freitas, O'Brien, 2015). These two predominant conceptualizations of gratitude are discussed more in depth next.

### **Gratitude as a Positive Emotion**

Studies considering gratitude as a positive emotion have defined gratitude broadly, with some conceptualizations including gratefulness towards nature, whereas others focus more on gratefulness triggered by other people. Considering both these ideas, emotion gratitude depends mainly on two cognitive processes: (a) recognizing that a positive benefit/experience has been obtained and (b) acknowledging the external source of the positive benefit (either another person or a sense of emotion gratitude coming from positive aspects in the environment, such as a beautiful sunset).

Thus, emotion gratitude is a feeling that happens when a person acknowledges a valuable benefit/experience triggered by someone or something other than oneself. It is considered an episodic social emotion, given that it is reflected in a specific external event and the pleasant feeling of the moment (Emmons & McCullough, 2003; Emmons & Stern, 2013; Froh, Bono, & Emmons, 2010; Froh, Sefick, & Emmons, 2008; McCullough, Kilpatrick, Emmons, & Larson, 2001; Rash, Matsuba, & Prkachin, 2011; Wood, Joseph, & Maltby, 2008).

Besides the definition of gratitude as an episodic emotion (gratitude mood) mentioned above, emotion gratitude has also been considered as a disposition. From this second point of view, some scholars have argued that individuals differ in the frequency and intensity to which they tend to experience the positive feeling involved in gratitude. As stated by McCullough et al. (2002), a grateful disposition is considered “a generalized tendency to recognize and respond with

grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (p. 112).

Wood, Froh, and Geraghty (2010) further proposed that a dispositional gratitude would be part of a broader positive life orientation, in which people who are highly grateful notice and appreciate the positive in life more than less grateful people. This perspective includes emotion gratitude that arises from receiving a benefit from others, as well as appreciation toward nature and God, for example.

Gratitude as a positive life orientation involves the feelings of abundance in life, the tendency to appreciate simple pleasures, and appreciation of others' contributions to a person's well-being. This would include, for example, being "amazed at how beautiful the sunsets are" (Watkins, Woodward, Stone, & Kolts, 2003, p. 434). This notion of gratitude as a life orientation, however, contradicts the idea that emotion gratitude differentiates gratitude from happiness (as suggested by McCullough et al., 2008), because the former is preceded by the perception of being benefited from others' generous action. Thus, including gratitude toward intangible things may blur the definition of gratitude and its distinction from appreciation even more.

Overall, the key point in the conceptualization of gratitude as an emotion is the positive feeling triggered by someone or something, which does not necessarily include reciprocation to the benefactor (Tudge, Freitas, O'Brien, 2015). The benefactor here, when existent, is simply considered the external force triggering the feeling of gratitude, but there is no required (intended or actual) action of reciprocation towards the benefactor, as there would be in gratitude as a moral virtue (Gulliford et al, 2013; Kristjánsson, 2013).

Using gratitude as an emotion, empirical studies have mainly aimed to quantify how grateful someone is (or tends to be) and correlate it with overall subjective well-being, positive

affect, life satisfaction, prosocial behaviors, and social support, among other positive outcomes (for example, Froh, Emmons, Card, Bono, & Wilson, 2011; Froh, Yurkewicz, & Kashdan, 2009; Hoy et al., 2013; McCullough et al., 2002; Sun & Kong, 2013; Watkins et al., 2003; Wood, Maltby, Gillett, Linley, & Joseph, 2008).

Promoting emotion gratitude, thus, is said to lead to several positive outcomes beneficial for people's well-being, as well as to buffer negative outcomes, such as depression, stress, and materialism (Froh, Emmons et al., 2011; Wood, Maltby, et al., 2008). Encouraging gratitude among children and adolescents is held to be especially beneficial, given that it promotes healthy development through fostering a focus on positive aspects of life, boosting beneficial outcomes and protecting against negative outcomes (Froh et al., 2008; Froh, Emmons et al., 2011; Froh, Fan et al., 2011).

Nevertheless, as previously mentioned, gratitude as an emotion seems like a broad concept difficult to differentiate from other positive feelings, such as appreciation and happiness. Furthermore, an approach that focuses on people's appreciation of their own experiences or benefits does not necessarily consider or emphasize the role of others. Bonnie and de Waal (2004) stated that appreciation may be a necessary component of gratitude, but the emotional response of feeling good by itself is not sufficient.

Gratitude as an emotion, thus, neglects the interpersonal consequences of the positive feeling elicited by the benefit; that is, the need of an intention to reciprocate the act of kindness from the benefactor. Considering the interpersonal aspect of gratitude, the moral obligation of reciprocation emerging from the emotion (or appreciation) is the essence of gratitude. Thus, even though gratitude involves emotional states, focusing on those or the disposition of feeling it would not be sufficient to capture the full meaning of gratitude (Annas, 2011; Gulliford et al., 2013; Tudge, Freitas, O'Brien, 2015).

Based on that, some scholars have provided insights on how gratitude can be differentiated from other umbrella concepts, such as appreciation and gratefulness. Fagley (2016) stated that even though gratitude and appreciation sometimes are used to refer to the same thing, gratitude is just one aspect of appreciation (that is, appreciation is the higher-order construct). Fagley proposed eight aspects of appreciation: a “have” focus; awe (admiration for nature, etc.); ritual (using routines or practices to foster noticing and valuing something); valuing the present moment; self- or social-comparison; *gratitude* (*feeling grateful to a benefactor—a person, a deity, or an agent capable of intentional action—for the help, support, or opportunities*); appreciation triggered by the experiences of loss or adversity; and interpersonal appreciation (noticing and valuing a person in one’s life).

Gratitude as an element of appreciation becomes clearer when considering the difference between being grateful **for** something, which is linked to aspects of appreciation other than gratitude, to being grateful **to** someone, which is specifically one of the most important parts of the concept of gratitude as a moral virtue (e.g., Carr, 2013; Fagley, 2016). For Fagley, all gratitude includes appreciation, but not all appreciation is gratitude. In a similar way, Rusk, Vella-Brodrick, and Waters (2015) suggested a distinction between gratitude and gratefulness—the first refers to the appraisal of benefits regarding the agency of another person or entity, and the latter (which can be related to appreciation) to the appraisal of benefits that do not involve the doing of others.

From these perspectives, gratitude is part of a complex and dynamic system of appreciative functioning, involving different and interacting psychological and social processes. However, it is possible to think of gratitude as a concept in itself (and not simply as part of appreciation), particularly in the case of gratitude as a moral virtue, in which clear necessary elements that define its feelings and expression are defined.

**Operationalization of Gratitude as an Emotion.** There are two main self-report measures empirically used to quantify emotion gratitude (e.g., intensity and frequency), which are typically used to investigate its relation with other variables, such as subjective well-being (Gulliford et al., 2013; Tudge, Freitas, O'Brien, 2015). These measures are: (a) The Gratitude, Resentment, and Appreciation Test (GRAT; Watkins et al, 2003), and (b) the Gratitude Questionnaire 6 (GQ-6, McCullough et al., 2002). Both these measures have been used in different countries, although they were created in the U. S. and used predominantly with European American and middle-class samples.

The GRAT was developed to measure dispositional gratitude and it was originally validated among North American college students (Watkins et al., 2003). The final scale proposed by Watkins and colleagues consisted of 44 items, with three factors based on their view of gratitude. Paradoxically, items reflecting a fourth factor, the importance of expressing gratitude (which is the most likely to be related to the conceptualization of gratitude as a moral virtue), were dropped due to poor fit.

The three final factors composing the GRAT are: (a) "Sense of Abundance" (for example, "Although I think that I'm morally better than most, I haven't gotten my just reward in life;" reversed coded), (b) "Simple Appreciation" (for example, "Oftentimes I have been overwhelmed at the beauty of nature"), and (c) "Appreciation of Others" (for example, "I feel deeply appreciative for the things others have done for me in my life").

The GQ-6 was also developed to assess disposition toward gratitude. Although the authors initially tried to validate close to 40 items, the final scale consists of six items and considers that highly grateful people experience positive events more intensely, more frequently throughout the day, with greater density (being grateful to more people), and across a wider span of situations (such as among family, friends, and teachers) (Froh, Emmons et al., 2011;

McCullough et al., 2002). Some sample items are “I have so much in life to be thankful for,” “If I had to list everything that I felt grateful for, it would be a very long list,” “I’m grateful to a wide variety of people,” and “As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.”

These scales mostly reflect aspects linked to appreciation, but not gratitude as a moral virtue (Fagley, 2016; Rusk et al., 2015; Tudge, Freitas, & O’Brien, 2015). For instance, they do not include items to reflect the recognition of others’ intentionality and the willingness to freely reciprocate the benefactor, or even the social expression of gratitude through words or actions (although the importance of expressing gratitude was originally included in the GRAT). They do, however, include feelings of awe (admiration for the nature) and a “have” focus (sense of abundance), for example (Fagley, 2016).

Thus, for Fagley (2016), these scales mislabel the latent construct measured by them as “gratitude” when in fact they represent aspects of “appreciation.” Nonetheless, they have been widely used, claiming to assess gratitude not only among adult samples, but also to some extent with children and adolescents and with samples in other countries. For instance, both the GRAT-short form and the GQ-6 scales were validated among children and adolescents (aged 10 to 19) from a predominantly European American and affluent background in the U. S by Froh, Emmons et al. (2011). These authors suggested that both the GRAT and the GQ-6 factor structures for children were similar to those found among adult samples.

The GQ-6 scale seems to be the most widely used measure on gratitude, especially in research outside the U. S. Several scholars have used it in other countries, such as Iran, China, Netherland, Philippines, Portugal, and Brazil (e.g., Aghababaei & Tabik, 2013; Chen, Chen, Kee, & Tsai, 2009; Chen, Chen, & Tsai, 2012; Chen & Kee, 2008; Datu & Mateo, 2015; Kubacka,



Finkenauer, Rusbult, & Keijsers, 2011; Neto, 2007; Paludo, 2008; Sun & Kong, 2013). From all these studies, the validation process of the GQ-6 in China was available in English (with validation corresponding to what was found in the U. S.) and the validation in Brazil was available in Portuguese.

For the use in her doctoral dissertation in Brazil with adolescents in at-risk situations (living in the streets), Paludo (2008) reported that the psychometric properties of the GQ Portuguese version did not correspond to the original measure. The author suggested that these poor psychometric properties with Brazilian respondents may be due to (a) the age of participants (adolescents), given that the original measure was developed with adults (although it was also validated among North American children and adolescents), and (b) the particular characteristic of the target sample (adolescents in vulnerable situations).

An alternative to the use of scales are experimental studies, in which gratitude conditions are created. Scholars using this approach have also conceptualized gratitude mainly as a positive emotion (Algoe et al., 2008; Bartlett & DeSteno, 2006; Emmons & McCullough, 2003; Froh, Kashdan, Ozimkowski, & Miller, 2009; Froh et al., 2008). Wood and colleagues (2010) pointed to three types of intervention: (a) listing things for which to be grateful for (counting blessings), (b) gratitude writing/contemplation (usually instructing participants to think or write about things globally), and (c) “behavioral” expression of gratitude, such as writing a gratitude letter (a “thank you” letter) and delivering to the person.

This last strategy can be considered as closer to gratitude as a moral virtue, given that it includes an action toward the benefactor, not seen in the two previous intervention strategies. However, a “thank you” note does not necessarily consider the needs and desires of the benefactor and whether there is a moral obligation to reciprocate a benefit (it may simply imply manners).

In lines with research using gratitude scales, studies using experiments have found a positive association between gratitude and positive outcomes (e.g., relationship formation, prosocial behaviors, life satisfaction, positive affect, and subjective well-being) and negative affect (see for example, Algoe et al., 2008; Bartlett & DeSteno, 2006; Emmons & McCullough, 2003; Froh et al., 2008; Froh, Kashdan et al., 2009; Watkins et al., 2003). Nonetheless, Renshaw and Steeves (2016), in their meta-analysis of gratitude interventions, found that, in general, “gratitude-based” interventions were ineffective, and more research on that should be conducted.

Renshaw and Steeves (2016) showed concerns that concurrent cross-correlation of the gratitude measures demonstrated only 22% of shared variance with each other, indicating that they are measuring imprecise or possibly related, yet different, constructs. This drew attention to similar issues raised by the use of emotion gratitude scales. In other words, intervention strategies also seem to address mostly other constructs related to gratitude, such as one’s appreciation and recognition for things and others one has in life.

Moreover, it is alarming that gratitude interventions have been promoted often ignoring contextual conditions in which they were conducted. This is especially so given that most of the interventions related to emotion gratitude were conducted with European American, middle-class samples in the U. S., which casts doubt on the efficacy and generalizability of such interventions with a more diverse population (Renshaw & Steeves, 2016).

### **Gratitude as a Moral Virtue**

Gratitude as a virtue has been emphasized in the literature by several scholars (see for example, Gulliford et al., 2013; Kristjánsson, 2013; La Taille, 2000; Roberts, 2016; Tudge, Freitas, O’Brien, 2015). As previously defined, moral virtue gratitude involves the benefactor freely and intentionally providing the beneficiary with something (benefit), the recognition of the benefactor’s intention by the beneficiary, and the beneficiary’s willingness to reciprocate (if

possible) the benefactor freely and intentionally (McConnell, 1993; Tudge, Freitas, O'Brien, 2015). But what is a virtue and why is gratitude one?

Annas (2011) explained that virtue is a lasting and typical feature of a person. According to her, for a person to be considered virtuous it is not enough to act and feel in a certain way in a given situation, if the actions and feelings are not typically felt and done. This disposition persists through challenges and it is strengthened or weakened given a person's experiences. Importantly, Annas called attention to the difference between a disposition that describes personal characteristics (such as being sociable or optimistic) and virtuous dispositions; the former does not compose a person's character, although it may be valued in some contexts. In contrast, virtues can be considered reliable dispositions that are socially admirable, which shape other peoples' expectations regarding the way the virtuous person will feel and act, given that the virtuous features are an essential part of the person's character.

Thus, virtues are stable features of character that are concerned with morally praiseworthy conduct, which typically includes a way of acting, reasoning, and feeling in a given situation. It is not a momentary state or emotional disposition, but an enduring pattern of attitudes and actions that can only be understood within individuals' interaction with others (Annas, 2011; Gulliford et al., 2013; Kristjánsson, 2013; La Taille, 2000; Prinz, 2009; Tudge, Freitas, O'Brien, 2015). La Taille (2000) argued that the acknowledgment of the moral obligation involved in gratitude is positively regarded by most people and cultures; this, in turn, serves as a standard of a desirable character and, therefore, can be considered as a virtue. Also, as posited by Tudge and Freitas (2015):

To be considered grateful is presumably to do more than simply expressing gratitude sporadically, or when reminded to do so; a grateful person is one who *typically* (though not necessarily under any and all circumstances) feels gratitude when given something or when helped. However, if the person providing that gift or help is doing so because

forced to do so, or because he or she intends to gain something as a result, gratitude is not required. (p. 3, emphasis added)

Contrary to the conceptualization of gratitude as a positive emotion, the beneficiary's intention or action of reciprocating is crucial for the concept of gratitude as a virtue, creating a cycle of gratitude. However, gratitude does not equate simply reciprocity, such as tit-for-tat actions, which is also found among nonhuman primates (Bonnie & de Waal, 2004), but it is an unforced willingness to reciprocate whenever possible (Roberts, 2016; Tudge, Freitas, O'Brien, 2015). Also, as suggested by Roberts (2016), there is a tendency to confuse gratitude with other feelings and states when analyzing situations deemed to call for gratitude. That is, some scholars fail to see that people can respond to situations calling for gratitude with other states or emotions, such as indebtedness or politeness.

As such, gratitude is different from indebtedness and simple reciprocity, given that gratitude does not involve a duty of reciprocation; rather, it involves an **autonomous** wish to reciprocate (Roberts, 2016; Tudge, Freitas, O'Brien, 2015). Whereas a person's debts can be paid by another person, gratitude cannot (McConnell, 1993). Roberts further stated that the "indebtedness" involved in gratitude is more like a "happy pressure" to acknowledge others' lovingly, and it is not related to paying the "debt" as a way to get even and eliminate the debt.

In Roberts' (2016) perspective, the debt in gratitude is not for the benefit per se, but for the benefactor's love. Thus, gratitude involves a debt that one wishes to stay in, which maintains and strengthens the bond between people—"it is a happy, voluntary debt to owe" (p. 62). Also, La Taille (2000) considered gratitude as a prosocial moral virtue because it does not involve direct personal gain, although it can elicit positive feelings, such as happiness. Figure 1 shows the conceptualization of gratitude as a moral virtue in relation to other associated concepts.

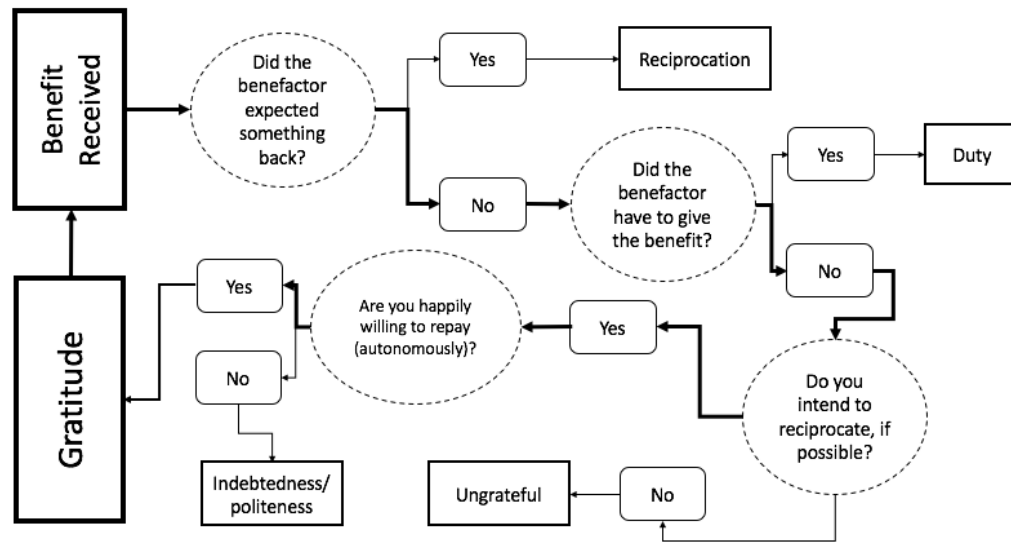


Figure 1. Conceptualization of Gratitude as a Moral Virtue

La Taille (2000, in press) called attention to the importance of studies addressing moral virtues in the field of human development, given that those contribute to the genesis of morality and represent essential character features of the moral personality. According to Tognetta and La Taille (2008), one of the biggest challenges in understanding morality is what engenders the moral action.

As posited by these authors above, there should be a desire or a willingness to act that leads individuals to act morally. To understand this desire or willingness, the authors proposed to think of the relation between the morals and the self. Acting morally is not just a single and loose behavior, but a behavior coherent to one's self (which is part of someone's character). Moral values are in the center of self-representation, which leads the person to act in accordance with her/his moral values.

Admiration for someone's characteristic implies attributing great value to such characteristics. Although admiration can also be ascribed to non-virtuous characteristics (such as

being attractive), it is likely that some individuals will express their admiration for virtuous characteristics (such as being just, honest, brave, generous, and grateful) (Tognetta & La Taille, 2008).

In their study, Tognetta and La Taille (2008) asked Brazilian adolescents (aged 12 to 15) what they admired in people and what they believed people admired in them. They found that 52% and 46.7% of the participants mentioned a moral virtue as the most admired characteristics in others and in themselves, respectively. Furthermore, they found that the participants who tended to admire moral virtues were also more likely to be attentive to characters' feelings in vignettes presented to them. These findings show the importance of understanding the development of moral virtues and its links to perspective taking.

Some empirical studies have also addressed gratitude from a moral virtue perspective. For instance, Baumgarten-Tramer (1938) and other scholars using her approach (Freitas et al., 2011; Merçon-Vargas, Pieta, Freitas, & Tudge, 2016; Pieta, 2009; Tudge, Freitas, Mokrova et al., 2015; Wang et al., 2015) provided evidence of complexly different types of gratitude expression across different ages. These types of gratitude indicate the presence or absence of some elements found in gratitude as a moral virtue—such as the autonomous wish to reciprocate and the consideration of other points of view.

Overall, these studies above support the notion that gratitude develops with age, as older kids expressed gratitude involving greater recognition of the benefactor's point of view. Along the same lines, Do Vale (2012) suggested that although young children may understand the social value of gratitude, this does not indicate that they express it autonomously. She also proposed that it is possible that more elementary levels of gratitude are shown among children in the process of developing gratitude as a virtue.

One of the advantages of addressing gratitude as a moral virtue is that it focuses on the relation between benefactor and beneficiary, and not only on the beneficiary's feelings elicited by the received benefit. Also, the debt of gratitude is not something someone can simply reciprocate in a tit-for-tat manner (as a way to even out what is gained), but it involves a continuous bond with others (Roberts, 2016). That is, for someone to become virtuously grateful, perspective taking and autonomy are necessary.

Furthermore, the perspective of gratitude as a moral virtue is valuable for the study of the development of gratitude and cultural variations related to it. As suggested by La Taille (2000, in press), the understanding of how gratitude develops may be enlightening to comprehend how morality comes about, how characters are shaped, and in which ways cognitive processes and values are implicated in this development.

However, this perspective also has some limitations. For instance, gratitude as a moral virtue is a complex process hard to be assessed in full, and there are some elements difficult to be sorted out, such as differences between related concepts (e.g., politeness and gratitude) (Roberts, 2016).

**Operationalization of Gratitude as a Moral Virtue.** There are two main methodological approaches that address the development of gratitude among children and adolescents as a moral virtue. The first assesses gratitude using vignettes intended to capture the feelings attributed to the beneficiary and the benefactor (either an adult or a peer) when a benefit (a help or something needed) is received, the relation established between beneficiary and benefactor, the need to return the favor or not, and why (Castro et al., 2011; Freitas et al., 2012; Freitas, Silveira, & Pieta, 2009a, 2009b; Mendonça, 2016).

The second approach uses a survey adapted from Baumgarten-Tramer's (1938) study—the Wishes and Gratitude Survey (WAGS: Freitas, Tudge, & McConnell, 2008). This survey is

composed of open-ended questions that aim to assess different ways participants would hypothetically express gratitude (e.g., verbally, concretely, or connectively) to someone (benefactor) who they believe would grant their greatest wish.

The first vignette used by the authors above involves a child who lost a cat and an aunt who was baking a cake. The aunt leaves the cake to help the child to find the cat. They find the cat and the cake is spoiled. The second vignette tells a story of a child who was cold and a new boy/girl in the class who had an extra sweater. The new boy/girl lent it to the child. The next week, the boy/girl forgets to bring scissors, as the teacher had asked, and the child had an extra pair of scissors.

After listening to each of the vignettes, children answer questions aiming to capture four main aspects of gratitude: (a) whether there was a positive, negative, or no feeling attributed to the beneficiary and/or the thing (e.g., the cat or the cake), (b) whether there was a relation established between beneficiary and benefactor; (c) whether there was the need to return the favor, and (d) the reasons attributed to why the beneficiary should or should not return the favor (e.g., no duty such as “she doesn’t have to,” habit such as “because he loves his aunt,” consequences such as “because the aunt will be sad if she doesn’t help,” or returning a favor such as “because the aunt helped him find the cat”).

The WAGS is composed of four open-ended questions: (a) “What is your greatest wish?” (b) “What would you do for the person who granted you this wish?” (c) “Is there anything else you should do?” and (d) “Who is this person?” (Freitas et al., 2008). The first two questions were adapted from Baumgarten-Tramer (1938). The second question has been used to assess the different types of gratitude found by this last author: (a) verbal gratitude (“I would thank him”), (b) concrete gratitude (reciprocation without evidence of taking the benefactor’s wish or need into account, for example “I would give her my favorite toy”), (c) connective gratitude (reciprocation



showing evidence that the benefactor's wish or need was taken into account, for example, "I would grant him his wish"), and (d) finalistic gratitude (for example, a kid who wished to go to college and in return would like to be the best student).

The two first questions in the WAGS were used in southern Brazil by Freitas and colleagues (2011) in a sample of children and adolescents, although only answers to the second question were analyzed. Likewise, Freitas, Mokrova et al. (2015) used the two original questions on the WAGS in a sample in the southeastern U. S. Wang and colleagues' (2015) study is the only published one using gratitude measured in the WAGS to compare children in different countries (China and the U. S.).

Findings of these studies will be reviewed later, when discussing the development of gratitude and relations between wishes and gratitude. All the studies using the WAGS used at least two judges to code the participants' answers into one or more of the types of gratitude and the intercoder reliabilities (Kappa) ranged from .90 to 1; researchers from the countries under investigation were included as coders.

Both instruments seem to be appropriate to the study of gratitude among children and adolescents, giving its emphasis on different elements reflecting developmental aspects of gratitude as a moral virtue. Most important, these instruments assess important components of moral virtue gratitude—the presence or not of a moral obligation of reciprocation, also considering the benefactor's needs or wishes—as well as capture how these components may change along developmental stages.

The WAGS is advantageous because it can be applied to several participants at the same time, although it requires a certain degree of literacy. Also, given that child's response of gratitude is related to their own greatest wish stated in the first question of the WAGS, this

instrument provides a more meaningful scenario to participants, as they themselves set a desired benefit.

However, it is important to say that the WAGS is not designed to capture gratitude as a virtue in its full development, but rather to understand children's expressions of gratitude in a gradually complex way. Thus, connective gratitude can be considered the most sophisticated form of gratitude (given that it taps into whether the benefactor's wishes or needs are being considered) and may be necessary (but it is not sufficient) for the development of gratitude as a virtue.

Furthermore, the main aspect of connective gratitude, the recognition of another's point of view, is assessed in a hypothetical way (what should someone do to the person who grant his or her greatest wish) and may not be sufficient to capture gratitude as a virtue. That is, in hypothetical gratitude scenarios, the behavioral component of gratitude (whether someone would actually act as they say they would) is not directly assessed, and there is only an attempt to capture a likely behavior. Therefore, gratitude as a moral virtue is a hard concept to be measured in its complexity, although the qualitative instruments described above have been developed to start understanding parts of this concept.

### **The Development of Gratitude**

Gratitude is not innate but develops with age (Baumgarten-Tramer, 1938; Do Vale, 2012; Freitas et al., 2011; Nelson et al., 2013; Tudge, Freitas, O'Brien, 2015). Annas (2011) proposed that becoming virtuous takes time and is developed through education, habituation, and life experiences. Prestes, Castro, Tudge, and Freitas (2014), based on the ideas of Piaget, suggested that values develop gradually, and that it is through interactions with adults, and later with peers, that children learn normative values present in their culture that regulate their relationship with others, which contributes to the development of moral values.

Piaget's (1965/1995, 1965/1932) perspective of moral development is helpful to understand how children develop the virtue of gratitude. His notion of morality poles includes a gradual development from a heteronomous moral orientation (obedience and unilateral relations) to an autonomous moral sense (related to mutuality and cooperation). This development involves a decentration of the self, increasingly enabling individuals to coordinate different viewpoints and to engage in more reciprocal relationships.

The heteronomous morality is one of simple and pure duty, it is objective; the child accepts (usually from adults) what must be done (the right thing to do is what conforms with the commands), and intentionality plays little role here. This type of morality leads to objective responsibility, in which a given action is evaluated in relation to whether it conforms or not to the order (Piaget, 1965/1932; Piaget & Inhelder, 1969/1966).

With the development of social cooperation and social-cognitive abilities, children's morality becomes based on mutual respect, which leads to autonomy. This progression takes place firstly in parallel to heteronomous morality and then in contrast to it. Autonomous morality puts its emphasis on autonomy of conscience, intentionality, and, thus, is more subjective (e.g., children now understand that rules of games are agreements between people and may be negotiated) (Piaget, 1965/1932; Piaget & Inhelder, 1969/1966). This developmental process, then, seems essential for the development of gratitude as a moral virtue, given that it involves the ability to consider another's perspective and autonomous thinking, which is needed to be freely willing to reciprocate a benefit.

There are some studies supporting Piaget's ideas of moral development as related to gratitude. For instance, Castro et al. (2011) argued that only children who have developed an autonomous moral sense can be considered as feeling and expressing the virtue of gratitude. Aligned with that, Nelson and colleagues' (2013) study showed that better understanding of both

emotions and of others' mental states at age 3 served as precursors to some understanding of gratitude at age 5.

These ideas provide support for the notion that gratitude (as a moral virtue) is a cognitively complex phenomenon, which involves social-cognitive abilities that develop throughout childhood and adolescence (Do Vale, 2012; Freitas et al., 2012; Nelson et al., 2013). Thus, it is expected that time, experience, and encouragement are needed for gratitude to fully develop, and that there are less complex forms of gratitude in these process of development (Baumgarten-Tramer, 1938; Freitas et al., 2011; Tudge, Freitas, O'Brien, 2015; Tudge, Freitas, Mokrova et al., 2015; Wang et al., 2015).

One of the pioneer studies showing elements of the development of gratitude was Baumgarten-Tramer's (1938) study in Switzerland. She utilized an open-ended question (discussed above) to explore children's expressions of different types of gratitude across ages: "What would you do for the person who granted you this wish?" Different types of gratitude expression were derived from her participants' answers—(a) verbal gratitude, which she reported did not involve linear changes with age (although older adolescents were the most likely to express gratitude in this way), (b) concrete gratitude by reciprocating with things important to oneself (which was more frequent among younger children), and (c) a more complex gratitude (connective gratitude) that indicate an ability to consider benefactor's wishes or needs into account (which was more frequent among adolescents).

A fourth type of gratitude, finalistic (e.g., being an excellent student in return for a scholarship to a good university) was rarely found and only among 14- and 15-year-olds. Replications of Baumgarten-Tramer's study in Brazil (Freitas et al., 2011; Pieta, 2009; Merçon-Vargas et al., 2016), the U. S. (Tudge, Freitas, Mokrova et al., 2015), and China (Wang et al., 2015) provided further support for her hypothesis that there are age-related variations in the way

children and adolescents express gratitude, although there seems to be some variations across these countries.

But, in which ways is the notion of gratitude as a moral virtue useful to understand the development of gratitude? Using the example from Baumgarten-Tramer's approach, participants' responses to the first question set a desired benefit that is meaningful to them (what one most wishes for, if granted, is certainly something worthy of reciprocation, if possible). The answers to the second question assess different ways children would reciprocate their hypothetical benefactor.

From the answers to this second question it is possible to infer whether the child expressed reciprocation autonomously in a way that considers the benefactor's needs or wishes into account (e.g., I would do whatever she needs). In contrast, children may answer indicating a simple need of reciprocity (not considering the other's perspective), perhaps due to societal norms of exchange (e.g., I would give him my favorite toy). In addition, children may reciprocate verbally, which may also be just an expression of politeness according to societal norms or may be linked to sincere gratitude (La Taille, 2000).

The main goal of this measure, then, is to assess in which ways children would hypothetically reciprocate a benefactor for a desirable benefit, and whether children's responses indicate autonomy or simply recognition that reciprocation is needed in a more tit-for-tat sense. Therefore, the different types of gratitude capture how these components may change along developmental stages.

This is different from the conceptualization of gratitude as a positive emotion, given that the aim is not to assess the child's feeling when the benefit is (hypothetically) received. From a perspective that considers gratitude as an emotion, children should be asked "How would you feel

if you get your greatest wish?” and “How intense would this feeling be?” The answers would probably not be very enlightening to the comprehension of the development of gratitude.

Overall, to the extent to which children’s gratitude answers include a level of reciprocity that involves perspective taking and autonomously wishing to reciprocate (something that is more clearly found in connective gratitude than in concrete gratitude), it is possible to think of gratitude as developing toward a virtue. The concrete form of gratitude (which may include the understanding of intentionality, but shows no evidence of considering the benefactor’s needs or wishes into account) is more likely an indication of a simple reciprocation. Reciprocity can be seen in the evolutionary basis of gratitude, which is also present in another species (Bonnie & de Waal, 2004). According to Bonnie and de Waal, reciprocity can exist without morality but morality does not exist without reciprocity; thus, a sense of reciprocity would be a prerequisite to gratitude.

The case of verbal gratitude is a little more complicated to understand, given that it may involve an understanding of intentionality and/or an appreciation of the benefactor’s wishes and needs or simply politeness. Saying “thank you” is something often encouraged by parents even in their very young children (Freitas et al., 2011; Visser, 2009).

La Taille (2000) suggested that politeness can be seen in two different ways—on the one hand, it can be linked to a verbal convention used in social interactions, which does not assume an intrinsic sincerity per se; forms of politeness may vary from culture to culture. On the other hand, politeness can refer to a genuine respect for others, and the verbal expression is a way to show it. According to him, the latter represents the beginning of the genesis of morality.

In a study with Brazilian children (6-, 9-, and 12-year-olds), La Taille (2001) found that younger children used impoliteness (e.g., not saying “please”) to explain non-moral behaviors (such as breaking someone’s object). This association was less prominent among older children.

This indicates that, for younger children, politeness may be an indicative of character (in a simplistic way), whereas for older children other aspects may be involved (such as intentionality).

Moreover, Becker and Smenner (1986), in a study with preschoolers, found that children spontaneously said “thank you” more to adults than they did to their peers. This supports Piaget’s ideas on moral development and heteronomous relations. However, showing that gratitude is also influenced by personal and contextual characteristics, differences were also found regarding gender and SES—girls and lower-SES children expressed more spontaneous thank you, than did boys and middle-class children.

Prinz (2009) suggested that socialization practices firstly encourage behaviors linked to expressing gratitude (i.e., saying “thank you” or giving a hug), which then will be internalized supporting the development of gratitude as a virtuous character. From this point of view, behavior is shaped and character follows, although this may in fact not be a simple unidirectional process. Therefore, there is still need to understand the mechanisms whereby people “become grateful.”

Parents’ perspectives about their children’s gratitude may shed light on how socialization is important for the development of gratitude. In focus groups, parents in Halberstadt and colleagues’ (2016) study mentioned different aspects of gratitude, including cognitive, emotional, and behavioral processes. For the latter, parents mentioned three types of behaviors linked to gratitude: **manners**, which included saying “thank you” and writing notes (these are often based on scripted social norms and do not necessarily represent actual gratitude, as stated by parents); **showing feelings of appreciation**, such as exclamations of joy and hugs; and **acts of generosity and sharing**, such as doing something for someone and engaging in some tasks with the *desire* to give back.

In addition, parents in Halberstadt et al.'s (2016) study described gratitude in different time frames, from a momentary and ephemeral experience (which resembles gratitude as a positive emotion), to feeling of sufficiency (a longer-lasting feeling), to a *way of being*, linked to "a practiced art or a way of life" (p. 445), which seems to be closer related to gratitude as a virtue. One problem with this study, however, is that it did not include families from a diverse background, with most parents being European American from middle-class origins. So, it is not possible to know in which ways these parental notions of children's gratitude may vary according to cultural values.

Several other important investigations have examined the development of gratitude in both the U. S. and Brazil using Baumgarten-Tramer's (1938) approach, although they did not directly compare these societies. These studies suggested that even though age-related changes had similar trends in Brazil and the U. S. (i.e., Freitas et al., 2011; Merçon-Vargas et al., 2016; Pieta, 2009; Tudge, Freitas, Mokrova et al., 2015), some cultural differences in gratitude may be found across these societies (i.e. greater expression of verbal gratitude among Brazilians). Thus, further studies should focus on disentangling developmental and cultural aspects of children's expressions of gratitude, considering not only culture on a country level, but also within-country variations.

### **Gratitude in Cultural Context**

Cultural values serve as a framework to individuals' beliefs and actions. Moral virtues are characteristics that are appreciated, admired, can be cultivated, and serve as an ideal standard of character. Virtues are, then, important because they reflect desirable values and characters of cultural groups (La Taille, 2000; Prinz, 2009). Freitas and colleagues (2011), based on Piaget's perspective, suggested that every society makes use of a set of devices to conserve its values, and morality is one of these devices.



For Kristjánsson (2013), one of the foremost goals of moral education is to help establish moral schemas in developing individuals by encouraging to act according to moral values present in the society, at the appropriate times and ways. Moral feelings and character virtues are gradually internalized and shaped through daily education and interactions with others, the family being one of the most important contexts of development (Annas, 2011; Prestes et al., 2014).

Although gratitude as a virtue may be found and valued in various—if not all—cultures, differences and similarities in the extent to which they are valued, appropriate to demonstrate, and the ways to express it should be addressed (Prinz, 2009; Tiberius, 2004; Tudge, Freitas, O'Brien, 2015). However, gratitude has been examined with limited attention to the influences of the contexts. Some studies have shown how different cultures encourage behaviors that have moral significance, such as helping behaviors (e.g., alerting a pedestrian who dropped a pen, offering help to a pedestrian with a hurt leg trying to reach a pile of dropped magazines, and assisting a blind person cross the street).

For instance, Levine, Norenzayan, and Philbrick (2001) studied helping behaviors across 23 large cities in different countries and their relations with collectivistic–individualistic values. A composite of helping behaviors showed great variation rates from an overall index of 93.33% in Rio de Janeiro (Brazil) to 40.33% in Kuala Lumpur (Malaysia); New York (U. S.) had the second lowest overall rate of helping behaviors (44.67%).

Despite this great variation, Levine and colleagues (2001) did not find a significant relation between helping behaviors and collectivism–individualism countries. Nonetheless, they found that countries that valued *simpatia* (a proactive socio-emotional orientation characteristic of Latin American countries) had on average higher rates of helping behaviors (although they did not measure *simpatia* directly).

The fact that collectivism–individualism was not related to helping behaviors is not surprising, given that several criticisms to this approach have been raised (see for example, Kağıtçıbaşı, 2007; Keller, 2007; Oyserman et al., 2002). Kağıtçıbaşı's (2007) orthogonal view of cultural differences may be more helpful to understand in which ways cultural values influence moral behaviors, such as the expression of gratitude across cultural groups.

This theory will be discussed more in depth in the next chapter. For now, it should be enough to say that thinking and acting in a self-directed way (autonomously), as well as feeling connected with others (relatedness) is likely to foster moral virtue gratitude. This is so given that gratitude as defined here involves autonomy and is based on interpersonal relations. Thus, it is possible that cultures that value both autonomy and relatedness would highly encourage connective gratitude, although this proposition has not yet been empirically tested.

Despite that, there is some support for the proposition that children in different countries express distinct types of gratitude in different proportion. For instance, Wang and colleagues (2015) found that overall children aged 7 to 14 in the U. S. were 76% less likely to express connective gratitude than were same aged Chinese children. Different ways in which the expression of gratitude changes across age-groups were also found in these societies—whereas older North American children (aged 11 to 14) were more likely to express verbal gratitude and less likely to express concrete gratitude than were their younger counterparts (aged 7 to 10), in the Chinese sample, verbal gratitude decreased with age and concrete gratitude stayed relatively stable.

Although Wang and colleagues (2015) did not examine empirically whether autonomous-related values impacted gratitude, there is some evidence that Asian cultures encourage both of those values in some contexts, such as among urban educated mothers (Keller et al., 2006). Thus, Wang et al.'s findings provide support for the claim that research should indeed explore how

culturally informed values, such as parental values and practices, impact the development of gratitude.

As stated by Rothenberg and colleagues (2016), it is still unclear how to best cultivate gratitude over development, with parents likely playing an important role. There are few empirical gratitude studies including the influence of parents on their children's gratitude; Hoy et al. (2013), using the GQ-6, found a small yet positive and significant correlation between children's and mothers' gratitude ( $r = .23$ ), but no correlation between children's and fathers' gratitude. However, it is important to say that the way gratitude was measured may simply reflect appreciation (as already discussed).

Moreover, Rothenberg et al. (2016) examined the mediational role of niche selection (tendency to involve children in gratitude inducing activities) between parents' and children's gratitude (as perceived by the parents). Their findings indicated that parents' gratitude was significantly correlated with parents' report of their children's gratitude and that parents' use of niche selection partially mediated this association.

Although these findings indicate that more grateful parents would be more likely to prioritize fostering gratitude as a socialization goal and practice for their children (Rothenberg et al., 2016), more investigations are needed to explore how culturally informed parental values impact gratitude. That is, it is possible that a general orientation toward socialization that emphasizes more connectedness with others as well as autonomy would provide grounds for the development of children's gratitude. The relation between parental socialization values and children's gratitude, however, remain unclear, with most of these studies including non-diverse samples.

### **Conceptualizing Materialism**

Scholars have suggested that societies are becoming increasingly concerned regarding rises in materialism among children at a very young age (e.g., Achenreiner, 1997; Banerjee & Dittmar, 2008; Blázquez & Bonás, 2013; Bottomley, Nairn, Kasser, Ferguson, and Ormrod, 2010; Chan, 2013; Chaplin & John, 2007; Freitas, Tudge, Palhares, & Prestes, 2016; Kasser, 2005). For Burroughs and Rindfleisch (2002), consumption has been culturally accepted as a way to seek success and happiness over the past decade.

Studies on materialism have increased since the 1980's (Richins & Rudmin, 1994). However, most empirical research on this topic has been conducted in the U. S., with predominantly European American adult samples—mainly college students (as with the studies on gratitude) (Bottomley et al., 2010; Chaplin & John, 2005; Dittmar, Bond, Hurst, & Kasser, 2014). For instance, Dittmar and colleagues' (2014) meta-analysis showed that across 258 samples, around 85% were European Americans, and 86% of studies used adult samples (with over half of them being college students). Furthermore, just a few studies were conducted to assess the development of materialism in children and young adolescents (Chaplin & John, 2007).

Overall, there is a divergence on whether materialism is a personality trait (Belk, 1984) or a personal value (Kasser 2002, 2005; Richins & Dawson, 1992). From Belk's (1984, 1985) perspective, materialism is viewed as a trait defined in relation to the importance ascribed to worldly possessions; at its highest level, possessions become predominant in one's life and are the main source of satisfaction. In this approach, materialism is considered together with three sub-traits: possessiveness, envy, and non-generosity.

In contrast, from Kasser's (2002, 2005) and Richins and Dawson's (1992) perspective, materialism is viewed as a personal value, which is linked to the positive evaluation of acquisition and accumulation of material goods above and beyond what is necessary to satisfy basic human

needs. Materialistic individuals view themselves as successful to the extent to which they own goods that project a desired image.

Thus, the value of possessions is linked partially to individuals' ability to confer status and to define a social identity, which are constructed within the culture (Dittmar & Pepper, 1994; Richins & Dawson, 1992; Richins & Rudmin, 1994). The definition of materialism as a value is consistent with the idea that this construct reflects the importance someone places on possessions and acquisition as necessary or desirable to achieve positive outcomes (Richins & Dawson, 1992).

Materialism, then, is a value that guides people's choices, serving as a basis for people's behaviors. Richins and Dawson (1992) proposed three aspects of materialism: (a) centrality—making the acquisition of material goods a central focus in one's life, (b) happiness—making the pursuit of material goods the main source of happiness, and (c) success—viewing the possession of material goods as a marker of success.

However, it is important to recognize that materialism is not a simple concept and has to be understood in the context of its meanings and purposes. For instance, Csikszentmihalyi and Rochberg-Halton (1978) stated that there are two main purposes for materialistic pursuits—instrumental and terminal. In instrumental materialism, possession of material things has a directionality that may help achieve personal goals; it is not the end per se. In contrast, in terminal materialism, possessions become the ultimate goal and are often associated with the image and status conveyed by the valued object (such as when having a car has no longer the goal of locomotion, but owning a luxury car has a central value in one's life).

The problem of materialism, then, seems to be when individuals define goals primarily in relation to having things (terminal materialism). Aligned with this, Richins (1994) found that materialistic individuals were more likely to value possessions for their status, appearance, and

utilitarian meaning. On the other hand, those low in materialism were more likely to derive values from possessions' symbolic and interpersonal meanings.

Kasser (2005) stated that different ways of dealing with possessions have implications not only for economic activities, but for personal well-being, interpersonal relationships, well-being of others, and behaviors related to the environment. Also, Dittmar and Pepper (1994) suggested that possessions are not only conceived as a part of the self (as a self-extension), but also should be understood from an intra-individual or interpersonal perspective. Materialistic values, then, play a role in self-perception, others-perception, and social cognition generally.

There is substantial evidence suggesting that materialism is linked to lower well-being (on a personal level) and is detrimental to the environment (on a societal level)—at least among North Americans. From the latter perspective, the consequences of terminal materialism seem to be its limitless demands on environmental resources (Csikszentmihalyi & Rochberg-Halton, 1978; Kasser, 2005; Sheldon & McGregor, 2000).

For instance, people high in materialism have been found to act in more ecological degrading ways when facing hypothetical dilemmas related to harvesting trees for a timber company (Sheldon & McGregor, 2000). Specifically, extrinsically oriented individuals (valuing more money, fame, and popularity) chose to harvest more than did individuals who were intrinsically oriented (valuing self-acceptance, intimacy, and community). Also, among children and adolescents (aged 10 to 18), materialism was found to negatively correlate with positive environmental behaviors that save resources, such as re-using paper and plastic bags, turning off electric lights when not using them, and recycling (Kasser, 2005).

On an individual level, materialism has been used as an inverse predictor of well-being (mostly among adults). People high in materialism have been shown to present less subjective well-being (Kasser, 2002), lower quality relationships (Kasser & Kasser, 2001), lower levels of

happiness and life satisfaction (e.g., Belk, 1984; Millar & Thomas, 2009; Otero-López, Pol, Bolaño, & Mariño, 2011), and to be more competitive and less cooperative (Sheldon, Sheldon, & Osbaldiston, 2000).

According to Dittmar et al.'s (2014) meta-analysis, the association between materialism and well-being depends on the type of well-being outcome, with larger effects for risky health, compulsive buying, and negative self-appraisal, and smaller effects for life satisfaction and negative affect. In general, however, as demonstrated by these authors, it seems that the negative association between materialism and well-being is found across most demographic characteristics, such as gender, age, and income in the U. S. and other countries.

Other studies have aimed to investigate the mechanisms through which materialism impacts well-being, although there seems to be cultural variations. For instance, Burroughs and Rindfleisch (2002) found that stress mediated the association between materialism and well-being among individuals with high levels of collective-oriented values, but this mediation was not found among individuals with low levels of collective-oriented values. Also, Baker, Moschis, Ong, and Pattanapanyasat (2013) found that stress partially mediated the relation between materialism and life satisfaction among a Malaysian adult sample.

Studies on materialism among children and adolescents are consistent with findings showing that materialism may be detrimental for the well-being. Kasser (2005) found that more materialistic adolescents (aged 10 to 18) were likely to be more anxious, unhappy, have lower self-esteem, and be less generous than were those who were less materialistic. Flouri's (1999) findings also indicated that materialism among British college students (aged 16 to 23) was negatively associated with satisfied interpersonal relationships and a feeling of self-worth.

Experiences with peers (peer influence, rejection, and pressure) have also been found to be positively related to materialism among children and adolescents in the United Kingdom

(Banerjee & Dittmar, 2008; Flouri, 1999) and in the United States (Achenreiner, 1997).

Conversely, having supportive peers has been found to be negatively related to materialism (Chaplin & John, 2010). Social comparison of consumption with friends also was shown to contribute to materialistic values among Chinese children and adolescents (aged 8 to 17) (Chan, 2013).

Self-esteem has been suggested as a mechanism through which materialism impacts well-being (Chaplin & John, 2005, 2007, 2010; La Ferle & Chan, 2008). Chaplin and John's (2007) findings indicated that developmental changes in materialism among North American children were due, in large part, to age-related changes in self-esteem; for these authors, by late childhood, children value possessions as a means of self-definition. In their studies, self-esteem was found to partially mediate the relationship between age and materialism from middle childhood (8- and 9-year olds) to early adolescence (12- and 13-year olds).

Materialistic values have been studied in relation to other life domains as well (Freitas et al., 2016; Kasser & Ryan, 1993). Kasser and Ryan found that, whereas the relative centrality of aspirations for self-acceptance, affiliation, and community feelings were associated with greater well-being and less distress, this pattern was inverted for financial success aspirations. Also, in Dittmar et al.'s (2014) meta-analysis, materialism was found to be associated with significantly lower well-being, mostly for scales including materialism in relation to other values.

Freitas and colleagues (2016), looked at how gratitude was related to different values orientations among children and adolescents (aged 7 to 14) in Brazil. They found support for the positive association between concrete gratitude (not taking the others' perspective into account) and hedonistic wishes (wishing for material things, fame, money, etc.). Although Freitas et al. found a change in values with age (more social-oriented wishes), they did not find a significant relation between connective gratitude and wishes reflecting values of connectedness. These



authors called attention, though, to the fact that values among children and adolescents are still developing. That is, values systems are initially instable and become increasingly consistent with child development.

### **Operationalization of Materialism**

According to Dittmar and colleagues (2014), materialism scales vary from absolute measures (importance of materialistic goals) to relative measures (how important are materialistic goals in comparison to other goals, such as personal relationships, community involvement, spirituality, etc.). Some of the common materialism instruments are the Belk Materialism Scale (Belk, 1984; Ger & Belk, 1996), the Material Values Scale (MVS; Richins & Dawson, 1992), and the Aspirations Index (Kasser & Ryan, 1993). These scales have been developed in the U. S. and sometimes adapted to other countries (e.g., Griffin, Babin, & Christensen, 2004). Each of these scales is discussed next.

The Belk Materialism Scale (Belk, 1984; Ger & Belk, 1996) is composed of 24 items with three sub-scales representing different traits (possessiveness, non-generosity, and envy). Possessiveness is defined as a “tendency to retain control or ownership of one’s possessions, whether confined to individual objects or generalized to all of one’s possessions” (Belk, 1983, p. 514), (e.g., “I tend to hang on to things I should probably throw out”) (Belk, 1984). Non-generosity is a disinclination to give or share one’s possessions (e.g., “I don’t like to lend things, even to good friends”). Envy is viewed as an interpersonal attitude of wanting the other’s possessions (e.g., “When friends have things I cannot afford it bothers me”). Belk (1984) validated this scale among North American Business school students. Ger and Belk (1996) used this scale cross-culturally (across 12 countries) and reported that although the dimensions differed somehow in composition, they were conceptually the same.

The MSV is an 18-item value-oriented materialism scale developed by Richins and Dawson (1992) with three components: (a) centrality (e.g., “Buying things gives me a lot of pleasure”); (b) happiness (e.g., “My life would be better if I owned certain things I don't have”); and (c) success (e.g., “I admire people who own expensive homes, cars, and clothes”). Richins and Dawson validated the MSV scale among college and consumer samples in the U. S. Griffin et al. (2004) found little support for measurement equivalence of the MSV among samples from Denmark, France, and Russia (though relative equivalency was found among the Danish sample). In contrast, Kilbourne, Grünhagen, and Foley (2005) found that the MSV was invariant across samples in Canada, Germany, and the U. S.

The Aspiration Index (Kasser & Ryan, 1993) includes 21 items across four domains (Self-Acceptance, Affiliation, Community Feeling, and Financial Success) to which participants rate both personal importance and the chances of attaining it in the future. Self-acceptance assesses aspirations for individual psychological growth, self-esteem, and autonomy (e.g., “You will know and accept who you really are”). Affiliation assesses aspirations related to family life and good friends (e.g., “You will have people who care about you and are supportive”). Community feeling is related to aspirations to make the world a better place (e.g., “You will work for the betterment of society”). Financial success assesses aspirations to retain wealth and material success (e.g., “You will have a job that pays well”). The authors validated it with a sample of college students and with a sample of 18-year-olds.

Most materialism instruments have been developed and tested with adult samples (especially college students) in the U. S., with smaller attention to measures of materialism among children (Bottomley et al., 2010). The two most used scales with children and adolescents have been adapted from the scales discussed above. For example, Goldberg, Gorn, Peracchio,

and Bamossy (2003) developed the Youth Materialism Scale (YMS) with 10 items (e.g., “I would be happier if I had more money to buy more things for myself”).

Kasser (2005) developed a four-item scale adapted from the Financial domain in the Aspiration Index and the MSV (e.g., “I like to own things that impress other people,” and “My life would be better if owned things I don’t have right now”). Although the most widely known materialism scales have been to some extent used and validated in other countries, no study has tested for the validity of these measures with children and adolescents in other countries.

**Qualitative Measures of Materialistic Values.** Given that any particular goal or value exists within a broader system of values and goals (Freitas et al., 2016), it may be advantageous to assess the importance of a particular goal (such as materialism) in relation to other goals (Dittmar et al., 2014). From the scales above, the Aspiration Index is the only one that can be considered as a relative measure. However, indirect and qualitative ways of assessing materialism have also been used in research, especially with children. These qualitative approaches are helpful because they may capture materialistic and non-materialistic values in an indirect way, which contributes to decreased social desirability (Chaplin & John, 2007).

For instance, Chaplin and John (2007), using pictures in a collage board, asked children to answer “What makes me happy?”. The pictures chosen reflected five categories: (a) hobbies (e.g., camping and playing games), (b) people (e.g., mom, dad, and friends), (c) sports (e.g., football, ski, and swimming), (d) material things (e.g., phone, money, and brand clothes), and (e) achievements (e.g., getting good grades and being good at sports). Materialism, then, was inferred by how many material things were included in the collage (in relation to other categories). Choosing more material goods over non-materialistic things indicated higher levels of materialism.

Although with a little different approach, other scholars have used an open-ended question to indirectly assess hedonism also in relation to other values among children in Brazil, the United States, and China (Freitas et al., 2016; Merçon-Vargas et al., 2016; Tudge, Freitas, Mokrova et al., 2015; Wang et al., 2015). These authors asked children: “What is your greatest wish?” Answers reflect three values: (a) hedonistic (e.g., wishes for material things, money, and fame); (b) self-oriented (e.g., academic wishes, career goals, future desires, and happiness); and (c) social-oriented (e.g., wishes for the family, friends, and the society in general). This method can also be considered a relative measure, given that it reflects children’s priorities in relation to other possible values (expressed in wishes).

### **The Development of Materialism**

According to Chaplin and John (2005), the development of children’s and adolescents’ self-concepts, fueled by the development of social-cognitive abilities, provides a basis for the development of materialistic values. Also, Kasser (2005) proposed that cultural groups emphasize different attitudes about material goods, which are then internalized by children. As stated by Achenreiner (1997), to associate possessions with satisfaction, a minimal level of cognitive development may be necessary.

John (1999), based on the Piagetian developmental stages, proposed three different phases that could be applied to materialism and consumer development: (a) the perceptual stage (around 3- to 7-year-olds), in which children are oriented to perceptual features of material goods, making decisions based on single characteristics (e.g., color, shape, quantity, etc.) in an egocentric manner; (b) the analytical stage (around 7- to 11-years-old), in which children transition from the perceptual to the symbolic stage, and are increasingly able to analyze things based on multiple dimension (e.g., quality and quantity) and to understand their own and others’ perspectives; and (c) the reflective stage (around 11- to 16-years-old), in which all dimensions are

further developed, with children being able to manage complex information and pay greater attention to social aspects surrounding them, relativizing things.

These developmental stages based on Piaget's ideas suggest that younger children would focus more on material things (given the concrete ways of thinking and the focus on the "here and now"). In contrast, older children would have increased abilities to value other life instances (such social relations) and to self-reflect, given their increased abstract and future oriented thinking abilities. However, these stages are also likely to be impacted by the influences of the context.

Overall, findings about the development of materialism among children and adolescents, though still incipient, seem to be inconsistent, indicating a complex process. In contrast to the idea that younger children would be more materialistic than would older children, several authors found no age differences in materialism. For instance, among North American children, Goldberg et al. (2003) found no differences in levels of materialism between younger (9- to 11-year-olds) and older children (12- to 14-year-olds).

Also, Kasser (2005) found no age differences among children and adolescents aged 10 to 18. Achenreiner's (1997) findings indicated that materialism varied only marginally among 8-, 12-, and 16-year-olds. This last author concluded that materialism may be a relatively stable trait that does not vary dramatically as a function of age, which is in contrast to the idea that materialism is related to social-cognitive development.

Another set of research, however, found age-related changes in materialism, although in different directions. Contrasting the idea that materialism decreases with age, it has been found to be positively related to age among 6- to 11-year-old Portuguese children (Cardoso, 2006) and 11- to 19-year-old British adolescents (Flouri, 2004). Chan, Zhang, and Wang (2006) also found that older Chinese adolescents were more likely to associate material possessions with success, to

admire people with expensive possessions, and to believe they would be happier or better if they had more possessions. Nonetheless, some evidence suggests that materialism decreases with age; for instance, younger children were found to be more materialistic than were older children in Hong Kong (Chan, 2003) and Singapore (La Ferle & Chan, 2008).

Challenging a linear developmental perspective, Chaplin and John (2005, 2007) proposed that the development of materialism is curvilinear, increasing from middle childhood to early adolescence and then decreasing by late adolescence (fluctuating with the development of self-concepts). Indeed, these authors' findings supported this hypothesis. Furthermore, with development, the accumulation of material possessions is not necessarily an end in itself anymore, but becomes a means for achieving higher goals, such as self-definition and self-enhancement (Chaplin & John, 2007). Somewhat related to that, Dittmar et al.'s (2014) meta-analysis indicated that the link between materialism and well-being was weaker among children and adolescents younger than 18-years-old, which may be related to the fact that materialism is still developing.

Some other studies have discussed age-related changes in hedonistic values, using the three types of wishes discussed above (hedonistic, self-, and social-oriented wishes). Freitas et al. (2016), Merçon-Vargas et al. (2016), Tudge, Freitas, Mokrova et al. (2015), and Wang et al. (2015) analyzed the changes in the types of wishes in 7- to 14-year-olds in Brazil, the U. S., and China, respectively. In all these studies, the authors found that older children expressed more self-oriented wishes (e.g., I wish to be successful) than did younger children, which is in accordance with the notion that older children can think in a more abstract and future-oriented way. Suggesting some cultural variability, however, older children from the U. S. and China expressed fewer hedonistic wishes than did younger children, but those from Brazil did not.

Also, there was an increased probability to express social-oriented wishes for older children in Brazil and in the U. S., but not in China.

These findings suggest that age-related changes may have a somewhat similar pattern across cultures for some types of wishes but not others, pointing to the importance of being careful with the implicit generalization that findings with North American samples are actually universal (Arnett, 2008). Overall, it is possible to see that the patterns of changes in materialism with age still need clarification; they may be impacted by not only how materialism is measured, but also by values encouraged across contexts.

### **Materialism in Cultural Context**

According to Blázquez and Bonás (2013), children's materialism can be understood considering three interrelated factors: (a) external influences, (b) family context, and (c) individual characteristics. Indeed, studies have suggested that values culturally informed, such as self-transcendence and self-enhancement (Bauer, Wilkie, Kim, & Bodenhausen, 2012; Burroughs & Rindfleisch, 2002; Freitas et al., 2016; Kilbourne et al., 2005), as well as parents' values and socialization practices (Carlson & Grossbart, 1988; Chaplin & John, 2010; Goldberg et al., 2003) will impact materialistic values. Demographic characteristics, such as gender and SES, have also been found to influence materialism.

There are some suggestions that materialistic values conflict with other-oriented values (such as family-oriented values); that is, pursuing material goods may preclude investments in one's families, friends, and the community. This conflictual state is proposed to promote psychological tension, contributing to lower well-being (Bauer et al., 2012; Burroughs and Rindfleisch, 2002; Kasser & Ryan, 1993).

In fact, there is evidence indicating that materialism is linked to more self-centered tendencies. For instance, Richins's and Dawson's (1992) analyses supported that materialistic

people preferred to keep resources for their own use and were less willing to share their resources. In similar ways, Tatzel (2002) suggested that materialistic people were more responsive to externals (appearance and prestige) and were more self-centered (less generous and less caring about relationships). Kasser and Ryan (1993) also indicated that an emphasis on financial success aspirations was related to lower psychological and social adjustment.

There is also evidence of a negative relation between other-oriented values and materialism. For instance, Burroughs and Rindfleisch's (2002) study among North Americans indicated that materialism was negatively associated with collective-oriented values, such as benevolence, conformity, and universalism (as assessed in the Schwartz values scale), and with measures of family, religion, and community values. Aligned with the tendencies above, materialism was closer related to self-enhancement values (such as hedonism and power). It is important to highlight that the relation between others-oriented and self-centered values were found in a sample across the U. S. Although the authors did not look at within-society variation; this suggests that materialism may vary according to different values found in the same society.

Further support for the relation between others-oriented and self-centered values and materialism was found by Kilbourne and colleagues (2005) among college students in Canada, Germany, and the United States; self-transcendence was negatively related to materialism, and self-enhancement was positively related to materialism across these countries. However, showing that values may have a different role across countries, Clarke and Micken (2002) found that in France, Australia, and Mexico high materialism was associated with fun/enjoyment, but not in the U. S. In an assessment across countries, Dittmar et al.'s (2014) meta-analysis indicated that the negative correlation between materialism and well-being was stronger in nations high on affective autonomy values (the pursuit of pleasure and an exciting life).



Also, suggesting that context impacts materialism, Bauer et al. (2012) found that environments that stimulated materialism triggered materialistic mind-sets, which were linked to negative outcomes. In their experiment, they found that simply viewing images of desirable consumer goods resulted in increased materialistic aspirations, which was associated with higher levels of depressed and anxious affect and lower preferences for social activities. Moreover, people in the consumer-cue condition reported a stronger desire to do better than other people (more competitive) than did participants in the control condition. In accordance with the studies above, these authors suggested that materialism possibly activates values of self-enhancement and deactivates values of self-transcendence, orienting individuals to competition (instead of collaboration), which is then related to anxiety and dissatisfaction.

Overall, some cross-cultural research findings indicated that “individualistic” cultures are more materialistic, and others suggested that “collectivistic” cultures express more materialism. For example, Clarke and Micken (2002) found that Mexican college students had significantly lower levels of materialism than did students from Australia and the U. S., although French students had the highest level of materialism among the four groups (not expected by the authors). Also, Schaefer, Hermans, and Parker’s (2004) findings indicated that Chinese adolescents (14- to 17-year old) were less materialistic than were Japanese and North American adolescents, although Japan has also been considered a collectivistic society.

Conversely, some authors found young adults in collectivistic countries to be more materialistic than those in countries considered individualistic. For instance, Ger and Belk (1990) found that Turkish college students were the most materialistic when compared to students in the U. S. and France, but were also the most generous. Moreover, Podoshen, Li, and Zhang (2011) found that young adults in China had higher scores both in materialism and conspicuous consumption than did North Americans.

For Tatzel (2002), one possible explanation for findings indicating that collectivistic cultures are more materialistic than individualistic ones is the fact that individualists are not particularly susceptible to social influences. In line with that, Burroughs and Rindfleisch (2002) found that stress mediated the relationship between materialism and well-being only for individuals with high levels of collective-oriented values. Another possibility for this disparity, however, is that the collectivistic–individualistic notion is too simplistic to understand cultural differences in materialism, which is a complex value that interacts with context in different ways.

Some other studies have indicated cultural nuances regarding the meaning and function of materialism (Ger & Belk, 1996; Guo et al., 2013). Guo and colleagues found that materialistic values were positively associated with financial altruism in less wealthy countries (China, Brazil, and Tunisia), but not in wealthier countries (U. S. and Taiwan). This suggests that pursuing wealth may be a means to enhance individuals' community and interpersonal relationships among individuals in less wealthy nations.

In the case of children and adolescents, a main factor contributing to the development of materialistic values is parental socialization values. Thus, one way in which children assimilate materialistic values is through their parents (Chan et al., 2006; Chaplin & John, 2010; Goldberg et al., 2003; Kasser, Ryan, Zax, & Sameroff, 1995). There are some studies showing that maternal levels of materialism are positively related to their children's materialism (e.g., Flouri, 1999; Goldberg et al., 2003; Kasser et al., 1995). Besides that, parental practices and parent–child relationships also may play a crucial role in understanding child's materialistic values (Flouri 2004).

In studies with British children and adolescents, Flouri found that parenting stress and marital conflict were positively related to parents' materialism, which in turn was related to children's materialism (Flouri, 2004, 2007). Also, Kasser et al. (1995) found that mothers who

valued their children's financial success more than other aspirations were less nurturing. In contrast, greater communication with parents has been found to be negatively related to materialism among Chinese children (aged 11 to 19), suggesting that parents seem to be less likely to encourage materialism in this culture (Chan et al., 2006).

Other studies pointed to the influence of parental values and parenting styles on children's materialism. Flouri (2001) found that materialism was negatively related to family togetherness in a sample of British boys aged 13 to 19. Kasser and colleagues (1995) found that mothers of adolescents who were more materialistic-oriented tended to value conformity more rather than self-direction (which was also associated with lower SES).

Kasser et al. (1995) proposed that people who valued financial success more than other values (such as affiliation and community feelings) experienced maternal and social environments that are less supportive of self-expression, personal growth, and other human needs (such as relatedness, autonomy, and competence—based on Self Determination Theory). This provides evidence that parental values are among the main aspects impacting the development of materialism among children.

Moreover, several demographic characteristics have been found to be relevant to materialism, including gender (although the results are mixed). Scholars have suggested that girls are usually raised to be more affiliative (seeking to maintain close relationships) than are boys (Bassen & Lamb, 2006; Strough & Berg, 2000), which may impact materialism. Indeed, Achenreiner (1997), Goldberg and colleagues (2003), and Kasser (2005) found that girls were less materialistic than were boys in the U. S. The same gender difference was found among adolescents in the U. K. (Flouri, 2004).

Also, Kasser and Ryan (1993) and Kasser et al. (1995) found that North American males rated financial support success as more important than did females; in contrast, females rated

affiliation, self-acceptance, and community feeling as more important than did males. The meta-analysis of Dittmar et al. (2014) indicated that the negative relation between materialism and well-being was stronger for females than for males.

However, studies with children in China and Portugal have not found gender differences in the expression of materialism (Cardoso, 2006; Chan, 2003; Chan et al., 2006). Similarly, Freitas et al. (2016), Merçon-Vargas et al. (2016), Tudge, Freitas, Mokrova et al. (2015), and Wang et al. (2015) found no differences in hedonistic wishes between boys and girls in Brazil, the U. S., and China. Nonetheless, girls expressed more social-oriented wishes than did boys in China and in Brazil (Freitas et al., 2016; Wang et al., 2015), and more self-oriented wishes than did boys in Brazil (Merçon-Vargas et al., 2016). Given these inconsistencies, John (1999) suggested that gender differences in materialism may be linked to cultural differences in gender roles.

Lastly, social class also seems to be important in understanding materialism. On a broader scale, Ger and Belk (1996) indicated that more affluent countries were not necessarily those in which individuals displayed higher levels of materialism; in fact, many of the most materialistic countries were developing countries. Also, contrary to what they expected, Dittmar et al. (2014) found that countries that had greater wealth inequalities presented smaller effects in the negative association between materialism and well-being than did countries that were more equal. According to Ger and Belk, globalization (or Westernization) may be a reason materialism is prevalent across societies, with greater consumer desires being encouraged with changes in the economy.

On an individual level, Kasser et al. (1995) found that North American adolescents and their mothers who aspired for more financial success came from less advantageous socioeconomic circumstances (indicated by lower maternal education level, lower income, and

low-income and high-crime neighborhoods). Similarly, Goldberg et al. (2003) found that North American youths with the highest levels of materialism tended to be drawn from families with lower incomes. There are also indications that British working-class adolescents endorsed materialistic values more strongly than did middle-class adolescents (Dittmar & Pepper, 1994; Flouri, 2004).

In contrast to these findings, Cardoso (2006) found that Portuguese children's materialistic values positively correlated with their parents' income. Merçon-Vargas et al. (2016) did not find differences in the expression of hedonistic wishes among Brazilian children from different social classes (indicated by attendance in public or private school). Nonetheless, middle-class children expressed more social-oriented wishes than did working-class children, who in turn expressed more self-oriented wishes. Taken together, these results suggest that social class may impact materialism differently across countries.

### **Relation between Gratitude and Materialism**

Whereas gratitude, as a moral virtue, emphasizes interpersonal relationships and the recognition of other's points of view, materialism is mainly linked to self-centered goals (such as self-enhancement, non-generosity, envy, and less social connections; Belk, 1984; Dittmar et al., 2014; Richins & Dawson, 1992; Tatzel, 2002). It appears, then, that these concepts are, to some extent, opposing regarding their goals and emphasis. In other words, values linked to gratitude seem to be conflicting with values related to materialism (Bauer et al., 2012; Burroughs and Rindfleisch, 2002; Freitas et al., 2016; Froh, Emmons et al., 2011; Kasser & Ryan, 1993; Roberts, Tsang, & Manolis, 2015).

Given these conflicting values, it is possible that similar mechanisms (but in different directions) operate in the development of both gratitude and materialism; these mechanisms are probably related to the development of self and self-other. While the development of gratitude

involves being able to shift from a focus on the self to others, materialism involves just a focus on one's self.

If these concepts are indeed related, then, materialism could be reduced by encouraging gratitude (Polak & McCullough, 2006). Despite that, not many studies have focused on the relations between materialism and gratitude, and the few studies addressing it have focused mostly on adult samples.

As stated by Roberts and colleagues (2015), on the one hand, materialism elicits values related to status and power, and on the other hand, gratitude is related to values of self-transcendence and benevolence. Thus, it is not surprising that gratitude has been found to correlate negatively with materialism (Freitas et al., 2016; Froh, Emmons et al., 2011; McCullough et al., 2002; Polak & McCullough, 2006; Solom, Watkins, McCurrach, & Scheibe, 2016; Watson, 2015). For instance, McCullough and colleagues (2002) found that grateful college students reported being more willing to share their possessions, less committed to the idea that material wealth is linked to success in life, and less endorsing of the idea that material wealth brings happiness.

Similarly, Froh, Emmons, and colleagues (2011), in a study with High School students (aged 14 to 19), suggested that gratitude was driven by intrinsic goals, other-oriented motivations, and the fulfillment of higher-order needs, including self-expression and purpose, as it predicted several adaptive outcomes (e.g., higher grades, life satisfaction, social integration, lower envy and depression). In contrast, materialism appeared to be triggered by extrinsic goals, individualistic motivations, and the fulfillment of lower-order needs, such as possessions and safety.

The mechanisms involved in this relation have been explored by some scholars (Kashdan & Breen, 2007; Roberts et al., 2015; Tsang, Carpenter, Roberts, Frisch, & Carlisle, 2014). Some studies suggested that life satisfaction is one of the mechanisms driving this negative

correlation—specifically, emotion gratitude (as measured by the GQ-6) increases life satisfaction, which in turn would decrease materialism.

Lambert, Fincham, Stillman, and Dean, (2009) found support for the full mediation role of life satisfaction in the relation between gratitude and materialism. In an experimental design study, they also found that people in the gratitude condition had higher life satisfaction and lower materialism than did people in the envy condition. Alternatively, gratitude has also been found to serve as a partial mediator between materialism and life satisfaction, as posited by Lambert et al., and found by Tsang et al. (2014).

Furthermore, gratitude has been tested as a moderator. Roberts et al. (2015) proposed that gratitude and positive affect would moderate the relation between materialism and life satisfaction. Their findings indicated that participants who had higher gratitude levels showed a weaker relationship between materialism and negative affect, and participants expressing a higher level of materialism showed less satisfaction with life when gratitude was lower. According to these authors, negative feelings related to materialism were buffered and even reversed by gratitude.

Other constructs related to materialism, such as envy (Belk, 1984; Froh, Emmons et al., 2011; McCullough et al., 2002; Richins & Dawson, 1992), have also been discussed in relation to gratitude. Solom and colleagues' (2016) results from their longitudinal study with college students suggested that although materialism and envy did not show an association with gratitude cross-sectionally, they predicted gratitude longitudinally (two months after), controlling for gratitude in the baseline (although the association was weak).

Poelker, Gibbons, Hughes, and Powlishta (2016) proposed that gratitude and envy would be divergent “emotions.” In their qualitative study with adolescents, they found that whereas participants expressed gratitude for central people in their lives (e.g., parents, friends, and

teachers)—showing the interpersonal characteristic of gratitude—they mainly envied material things others had (although they also expressed gratitude toward gifts).

Noticeably, all these studies focused on absolute materialism (the importance of materialistic goals not in relation to other goals). Perhaps addressing the links between gratitude and materialism through relative measures (the importance of materialistic goals in comparison to other goals) would allow better understanding of the associations of gratitude and values related to hedonism, self-, and social-focuses. That is, the link between gratitude and materialism may be better captured if situated within different value orientations.

Indeed, Tudge, Freitas, Mokrova et al. (2015) found a significant inverse relation between connective gratitude and hedonistic wishes among 7- to 14-year-old North American children. Freitas and colleagues (2016) found a positive relation between concrete gratitude and hedonistic values among Brazilians, although connective gratitude was not linked to social-oriented wishes in this sample. Moreover, Wang et al. (2015) found that connective gratitude was associated with greater likelihood of wishing for others' well-being; this type of wish was also inversely associated with concrete gratitude among North Americans.

Remarkably, no study either on gratitude, materialism, or links between those have addressed variations among ethnic groups within the U. S. and immigrant groups, despite research showing the great variability among groups within this context (Coon & Kemmelmeier, 2001; Suizzo, 2007; Tudge, Hogan, Snezhkova, Kulakova, & Etz, 2000). Thus, context seems to have been ignored in research on the topics discussed so far (except for some cross-cultural research on materialism, although there is also a lack of research addressing ethnic groups and within-societies differences).

As suggested by Tudge and colleagues (2000), comparisons across societies usually do not deal with the heterogeneity found within societies, which end up equating society to culture,



implying a homogeneity. Tudge et al. also posited that failing to consider variations within-society is especially problematic when societies are complex ethnically, racially, and/or socio-economically, like the U. S.

In the same line, Harwood, Schoelmerich, Schulze, and Gonzalez (1999) stated that “no substantive researcher (. . .) claims that cultures are monolithic, homogeneous entities devoid of internal variation” (p. 1006). Thus, to advance research on gratitude and materialism (and the links between those), it is necessary to understand how these vary across contexts and what the possible mechanisms influencing the development of materialism and gratitude are. This especially so, given the implications these constructs appear to have on the development of the self and on values and beliefs.

### **Immigrants in the United States**

Scholars are increasingly calling for attention to a more sensitive approach in understanding immigration by considering the heterogeneity of immigrants’ situations and experiences (see for example, Clark, Glick, & Bures, 2009; Clark & King, 2008; Portes & Rumbaut, 2014). Immigrants’ experiences will vary according to several factors, including legal status, SES, race, ethnicity, places they come from and to where they migrate, etc. (Portes & Rumbaut, 2014; United Nations Development Programme [UNDP], 2009).

Overall, in 2010, there were 40 million foreign-born individuals living in the United States (13% of the total U.S. population). Latinos represented over half of the total foreign-born population (53%; 21.2 million), with a further 28% from Asia, 12% from Europe, and 4% from Africa. These trends showed an overall increase of 8.8 million foreign-born over the last 10 years, with 5.1 million coming from Latin America (Acosta & De la Cruz, 2011).

At the time when Grieco et al. (2012) collected their data, the immigrant groups varied greatly regarding education, income, and participation in the labor force. For instance, groups

from Central America had the lowest levels of education (around 60% had less than high school diploma and only 5.3% had a Bachelor's degree) and groups from Asia had the highest levels of education (16.2% had less than high school diploma and 48.5% had a Bachelor's degree).

Overall, 67.7% of foreign-born individuals were in the labor force in 2010, with 77.2% of Central Americans and around 57.5% of foreign-born groups from Europe and Northern America. Regarding income, whereas Latin Americans had the lowest average household income among all foreign-born population (with Mexicans having the lowest of all), groups from Oceania, Northern America, and Asia had the highest average household income (a difference of \$36,187 between foreign-born from Oceania and Mexico). Latin Americans also had the highest poverty rates (23.6%) and European and Northern American had the lowest (around 10%) (Grieco et al., 2012).

Moreover, immigrant groups differed in relation to their legal status, with 37% of the foreign-born population being naturalized citizens, 31% legal permanent resident aliens, 28% undocumented, and 4% legal temporary immigrants. There were an estimated 11.2 million undocumented immigrants in the U.S. in 2010 (representing 4% of the U.S. population), indicating a slight decrease since the peak in 2007 (Passel & Cohn, 2011).

Some possible reasons for this decrease are less immigrants arriving, an increased number of immigrants voluntarily leaving the country, change of legal status, and deportation and removals. For instance, deportation has more than doubled in the past decades (Passel & Cohn, 2011). Most deportees were from Latin American countries, with the greatest number from Mexico (more than 70%), followed by Honduras, Guatemala, El Salvador, Cuba, and Brazil (Office of Immigration Statistics, 2008).

Immigrant children are among the fastest growing groups in the U. S. (Marks, Godoy, & García Coll, 2013; UNDP, 2009). According to Hernandez and Napierala's (2012) report in 2010, children in immigrant families accounted for one in every four children (25%, for a total of

18.4 million). By 2010, there were a total of 5.5 million children of undocumented immigrants, with around 4.5 million being born in the U. S. (therefore, U.S. citizens) and 1 million foreign-born (Passel & Cohn, 2011). Most children in immigrant families have a parent working full-time, live in two-parent families, and have parents who are learning English (Hernandez & Napierala, 2012).

Scholars agree that immigration impacts children's development in many ways, providing evidence for both positive and negative influences of migration on children's outcomes (Clark et al., 2009; Crosnoe & Fuligni, 2012; Fuligni, 2012; Marks et al., 2013; Suárez-Orozco & Yoshikawa, 2013). In general, children in immigrant families display a somewhat lower level of overall well-being than do children in non-immigrant families.

The constrained access to resources, economic hardship, and hostility toward immigrants are among the issues imposing barriers for immigrants' opportunities and children's development (Brabeck & Xu, 2010; Clark et al., 2009; Clark & King, 2008; Fuligni, 2012; Kalil & Crosby, 2010). On the other hand, immigrants seem to fare better in relation to some aspects, such as having less behavioral problems and better health status (i.e., less obesity) (Fuligni, 2012; Gonzales et al., 2008; Hernandez & Napierala, 2012).

Some authors have suggested that cultural values from the country of origin may serve as a protective mechanism impacting children's adaptive development (Geel & Vedder, 2011; Gonzales et al., 2008). Gonzales and colleagues, for instance, found that traditional cultural values served as a mediator between immigrant status and less externalizing behaviors among Mexican American families. Also, Geel and Vedder found that, despite socioeconomic disadvantages, family obligation and school adjustment were positively associated with adaptive outcomes among immigrant adolescents.

Fuligni (2012) suggested that some reasons for these “paradoxes” are related to immigration being a selective process, in which families who migrate hold high aspirations for their children, and have greater family togetherness, and work ethic, encouraging them to keep their children out of problems and in good health. As stated by Fuligni, acknowledging the selective process of immigration is crucial to understanding immigrant children’s developmental patterns. To address these complexities, it is important to compare children in immigrant families not only with other groups in the host country, but also with their counterparts who remained in the country of origin.

### **Brazilians Immigrants in the United States**

The U. S. is the main destination of Brazilian immigrants, but large-scale immigration to this country is considered relatively recent, with a significantly increased influx from 1980, mostly due to the economic and political crisis in Brazil (DeBiaggi, 2002; Lima et al., 2016; Marcus, 2009a, 2009b; Siqueira & Jansen, 2012). Although official estimations from the U. S. Census in 2010 talked about 340,000 Brazilians living in the U. S. (representing around 1.6% of the foreign-born population in the U. S.; Acosta & De la Cruz, 2011), this number seems to have been underestimated. According to the Brazilian Ministry of Foreign Affairs (2015), there were around 1.3 million Brazilians living in the U. S. in 2015.

Because of this inconsistency, it has been suggested that Brazilians are an “invisible minority” (Margolis, 1998 cited by Marcus, 2009b). Some of the possible reasons for this are the fear by undocumented immigrants to participate in the Census and confusion with the imposed ethnic/racial categories used in the U.S. Census (given the lack of an appropriate category that identifies Brazilians, as discussed later) (Joseph, 2011; Marcus, 2009b; Marrow, 2003; Zubaran, 2008). It is important to bear in mind, thus, that there is a paucity of data about Brazilian

immigrants in the U. S. and this population most likely has greater diversity than what has been reported.

Marcus (2009b), in a research of Brazilian immigrants who had returned to the country (returnees), found that one of the major reasons to migrate was financial motivation. However, there were also a variety of other reasons, such as the cultural influences of the U. S., curiosity to live in another country, having a family member already in the U. S., and better education opportunities. Initially, most Brazilian immigrants to the U. S. were from the state of Minas Gerais (southeast), with a recent increase of immigrants from different regions of the country, especially from Goiás (mid-west), Paraná, and Santa Catarina (south) (Lima et al., 2016; Marcus 2009a, 2009b; Siqueira & Jansen, 2012).

Based on data from the Brazilian consulates in the U. S., most Brazilians live in Massachusetts (22.8%, 300,000 Brazilians; Brazilian Ministry of Foreign Affairs, 2015). According to Lima and colleagues (2016), Brazilian immigration to this state increased from 1990, with a peak in the number of Brazilian immigrants in 2008-2009 (before the economic recession that hit the U. S.). Brazilians corresponded to 19% of newcomers in Massachusetts between 2000 and 2003 and were the fastest growing immigrant community in the area.

One of the reasons suggested for a higher concentration of Brazilians in this area is the large presence of Portuguese immigrants (Marcus, 2009a). Currently, the Boston area is home to several Brazilian organizations, which may contribute to the continuous immigration influx (DeBiaggi, 2002). Most Brazilians in the Boston area work with cleaning services, construction, and food services (Lima et al., 2016; Siqueira & Jansen, 2012).

The Atlanta area is one of the new gateways for Brazilian immigrants (Marcus, 2009a, 2009b), with an unofficial estimate of 30,000 Brazilians, approximately 70% of whom are from Goiás (Menezes, Galvão, Fernandes, Souza, & Nascimento, n.d.). Like the estimates in

Massachusetts, most Brazilians in the Atlanta area work in blue-collar jobs, such as construction and cleaning jobs (Global Atlanta Snapshots, n.d.; Menezes et al., n.d.).

Siqueira and Jansen (2012), using a self-report survey with more than 500 Brazilian immigrant workers in the Boston area, found that 56.5% had low proficiency in English and 26.2% had basic proficiency. They suggested that this lack of proficiency is likely to limit job options and expose immigrants to poor working conditions. Nonetheless, statistics suggested that Brazilian immigrants are near the U. S. average in educational attainment—33.9% have a college degree and 85.3% a high school degree (Portes & Rumbaut, 2014).

It is important to note, however, that these data are based on information included in the Census (accounting for the 340,000 Brazilians) and do not consider most Brazilians (not included in this Census). This becomes clear when we consider the education of Brazilian workers in the study of Siqueira and Jansen (2012), in which the majority had a high school diploma or less (about 77%) and only 23% had at least some college.

Besides the increasing number of Brazilian immigrants in the U. S., this group has been understudied (Joseph, 2011; Marrow, 2003; Zubaran, 2008). As pointed out by Siqueira and Jansen (2012), most studies conducted with Brazilian immigrants in the U. S. involve sociological qualitative methods that address aspects such as the history of the population and the socio-economic and cultural characteristics of Brazilian immigrants (see also DeBiaggi, 2002). Furthermore, most of these studies address first generation adult immigrants.

Some studies have discussed the issue of Brazilians' ethno-racial identification in the U. S. context among Brazilian youths (Marrow, 2003) and Brazilian returnees (Joseph, 2011), and the impact of legal status on Brazilian youths in transition to adulthood (Cebulko, 2014). On this note, it is important to contextualize some differences between the racial context in Brazil and in the U. S., as well as the implication of the North American context for Brazilians.

Due largely to the flow of immigrants from Latin America, the North American Census, from the 1970's, included the term "Hispanic" as a racial category to address this population, and later added the term "Latino," which is mostly used conjointly with "Hispanic" (Marrow, 2003). According to Zubaran (2008), these terms in the U. S. are used to identify persons originating from Central and South America. However, these terms are problematic, especially in the case of Brazilian immigrants, given that they do not consider the differences in language and self-identification of this population.

It is important to note that, although concepts such as race and ethnicity are related, these terms do not refer to the same thing. For example, race is a construct usually linked to physical characteristics such as skin color, facial features, and hair type, which are used as the basis for the social construction of racial categories. Ethnicity, on the other hand, generally refers to groups that may be characterized as having a nationality, language, and culture in common (Betancourt & Lopez, 1993; Schaefer, 2004).

According to Zubaran (2008), the existing racial categorization in the U. S. confounds race with ethnicity, creating a "racialization" of the term "Hispanic/Latino," given that "Latinos" may be "White," "Black," or "Brown" (see also Betancourt & Lopez, 1993; Schaefer, 2004). The racialization of "Latinos" is linked to several interrelated factors such as skin color, ethnicity or presumed nationality, language, and accent, and it has several consequences for Brazilian immigrants' experiences in the U. S. (McDonnell & Lourenço, 2009).

This racialization is particularly problematic when an ethnic and racial self-identification is inconsistent with how people from a given ethnic/racial group see themselves (McDonnell & Lourenço, 2009). Imposed racial categories are complicated, for example, when we consider that Brazil has one of the most heterogeneous populations, and that the racial identification system in

Brazil differs from both the North Americans and other South American countries' systems (Zubaran, 2008).

As stated by Zubaran (2008), one of the most striking differences in the Brazilian racial system and the North American one is related to what has historically been considered to be "Black" and "White" in these two countries. While in the U. S. a person with any African ancestry is considered African American, in Brazil a person could have some African ancestry and still be considered "White" (an exclusive versus and inclusive use of the category "White"). Moreover, in contrast to the dichotomous racial categorization system of the U. S., in Brazil the system is more fluid and includes intermediate racial categories (Schaefer, 2004; Zubaran, 2008). However, this by no means suggests that there is no racial discrimination in Brazil.

Joseph's (2011) and Morrow's (2003) studies point to the fluidity of Brazilians' racial identification when exposed to the U.S. racial stratification. As found by Joseph, many of the Brazilian returnees who identified themselves as White prior to emigration, identified themselves as Hispanic or Latino in the U. S. (answering retrospectively, 39% self-identified as Latino in the U.S. context). One of the reasons for this shift is the identification of Brazilians by people in the U. S. as Latinos or Hispanics, which has implications for perceived experiences of discrimination. This suggests that the incorporation of some Brazilians into the North American society means to become "non-White," indicating that individuals' identity experiences can be considered fluid and context-dependent (Zubaran, 2008).

Joseph (2011) also reported that most of the 49 Brazilians she interviewed said they experienced (or knew someone who experienced) some form of discrimination during the time they lived in the U. S. This perception of discrimination was linked to being perceived as "Hispanic/Latino," undocumented, and/or the lack of proficiency in English. She further compared whether the racial self-identification of her participants was linked to this perception of



discrimination. She found that 57% of “White” participants, 75% of “Blacks,” 47% of “Latinos/Hispanics,” and 33% of “Others” reported having experienced discrimination while living in the U. S. Hence, the perception of discrimination was not exclusive to Black Brazilians, although it was more prominent among this group. These experiences were related to a constant fear and anxiety, especially among immigrants who were also undocumented, showing the intersection between racial, ethnic, and legal status aspects.

Furthermore, Marrow (2003) found that Brazilians born in the United States were more likely to identify themselves as just White or Black. According to her, this shows an important generational and cultural difference in racial self-identification. Additionally, youths interviewed by Marrow tended to identify themselves in terms of their nationalities (e.g., Brazilian and Brazilian American) rather than in the panethnic categories. For instance, when participants were questioned “what is your race?” the majority answered “Brazilian,” whereas when asked “what is your skin color?” the majority said “White.” She also noted that some participants equated Latino or Hispanic to being an immigrant, with many distancing themselves from this category, whenever possible. Although the author interviewed 22 Brazilians across various ages, unfortunately she did not discuss the results in relation to the impact of age on racial-identification perception.

Cebulko’s (2014) study was one of a few to discuss how different legal statuses impact the life of 1.5-generation Brazilian youths aged 18 to 25 (usually youth that were born in Brazil but migrated still as a child). According to her, the experiences of the 1.5-generation are peculiar because many of these youths have few memories of the original country, and sometimes do not speak the language, impacting the experiences of legality differently. For instance, a potential deportation would mean going back to a country where they have few connections.

Overall, Cebulko's (2014) findings confirmed that undocumented and liminally legal youths experienced limited access to resources, such as not being eligible for college financial aid or to get a driver license. These restrictions to resources impact youths' life expectations, social interactions with friends, and sense of belonging to the U. S. In addition, most of the youths reported being the target of or hearing about anti-immigrant sentiments. Undocumented and liminally legal youths, however, also had to deal with the "illegality" stigma. Many of these youths reported reluctance to disclose their legal status to friends and to other people with whom they interacted because of fear of being judged or jeopardizing their friendships.

In sum, although the literature on immigrant families and children is vast, specific groups such as Brazilian immigrants have been understudied, with the existing studies not focusing on developmental processes (e.g., Cebulko, 2014; Marrow, 2003). Research that aims to understand the contexts of children in Brazilian families in the U. S. will contribute to the knowledge on immigration and to the recognition of the diversity and complexity of immigrant groups.

Acknowledging various aspects of immigration is important not only to the understanding of immigrants' experiences, but also to promote the implementation of culturally sensitive policies and practices. Moreover, it is crucial to encourage a critical thinking dialogue about immigration issues, highlighting diversities and demystifying stereotypes. Understanding how contextual aspects and cultural values impact immigrant families and the development of children and adolescents is crucial and draws attention to the fact that the adaptation of immigrants depends on both individual and contextual characteristics.

### **Cultural Values and Ethnic Socialization**

The way in which culture is conceptualized is essential to understand how it impacts child development. Tudge (2008) defined a cultural group as any group of individuals that shares a set of values, beliefs, and practices (and intends to communicate those to other generations),

that shares a common sense of identity, and that has access to similar resources and institutions.

An **entire society** as well as **sub groups** within a society may be considered as cultural groups to the extent to which members of those cultural groups ascribe to the same values, practices, and identification, and share similar resources.

Many scholars have suggested that cultural values impact people's beliefs and behaviors. From Kağıtçıbaşı's (2007) perspective, different combinations of values in two dimensions (agency and personal distance) influence children's development of the self. This developmental process is influenced by parents' ethnotheories, which are belief systems about childrearing and the socialization goals embodied in it, and socialization practices (e.g., Harkness et al., 2010; Kağıtçıbaşı, 2007; Keller, 2007; Keller et al., 2006; Tudge, 2008).

In a multicultural society like the U. S, the presence of diverse immigrant groups provides great opportunities to examine the ways in which cultural values impact children's development. Despite being exposed to mainstream North American values, parents from ethnic minority groups usually still hold to beliefs from their culture of origin, although to varied extents (Harkness et al., 2010; Suizzo, 2007). Consequently, immigrant parents' ethnotheories may differ from those of native-born parents (Raghavan, Harkness, & Super, 2010).

Particularly in the case of immigrant families, parents are important socialization agents in transmitting ethnic cultural values to their children, given that they may be the main source of knowledge about their culture of origin (Moua & Lamborn, 2010; Raghavan et al., 2010; Tsai, Park, Liu, & Lau, 2012; Sabatier & Berry, 2008; Umaña-Taylor, Alfaro, Bámaca, & Guimond, 2009). It is through ethnic socialization practices that children learn about values, attitudes, norms, and behaviors of their culture of origin and come to identify themselves as part of the group (Moua & Lamborn, 2010; Tsai et al., 2012; Umaña-Taylor et al., 2009). Ethnic socialization can be viewed as a multidimensional construct that involves different practices

across various domains, and different groups will have similar and different socialization strategies (Moua & Lamborn, 2010).

Scholars have shown that parents from distinct cultural groups have different parental socialization goals for their children and beliefs about childrearing. For instance, in a qualitative study, Raghavan and colleagues (2010) compared parental ethnotheories between Asian Indian immigrant mothers and North American mothers in relation to their daughters (aged 5 to 15). These authors found that Indian immigrant and North American mothers reported both similar and different sets of culturally desirable qualities for their daughters. Mothers in both groups mentioned the following characteristics as important: caring, smart, happy, sociable, and shy (although some of their meanings varied for these both groups). In contrast, whereas North American mothers used descriptors such as independent, well-rounded, athletic, assertive, and outspoken, Indian mothers mentioned characteristics such as responsible, obedient, respectful, hospitable, modest, and argumentative.

In some cases, Indian mothers explicitly said that the qualities valued by them were contrary to what they believed was common in the U. S. However, Indian immigrant mothers also recognized the need to make some concessions in their own values and aspirations given the cultural norms present in their new communities (Raghavan et al., 2010). This shows an active parental negotiation between their ethnic cultural values and the values present in their context of reception.

In the same lines, Moua and Lamborn (2010), in a qualitative study with 14- to 18-year-olds Hmong Americans, found that mothers used a variety of strategies to encourage their children to learn about and get involved with their original culture. Nonetheless, they also encouraged their children to learn practices of the mainstream society.

Although these studies showed differences in parental beliefs across different cultural groups, less is known about the ways in which cultural values impact parental socialization practices, and in turn influence children's development of the self. There is some indication that ethnic socialization practices would mediate the relation between parental cultural values and child outcomes among immigrant families (as proposed by Keller, 2007 and Kağıtçıbaşı, 2007).

Testing for this mediation, Knight and colleagues (2011) found that mothers' and fathers' Mexican-American values were positively associated with their ethnic socialization practices. In turn, mothers' ethnic socialization (but not fathers') was positively related to adolescents' (aged 9 to 12) ethnic identity and changes in their Mexican-American values two years later.

These findings suggest that parental ethnic socialization practices are an important mechanism through which parental cultural values impact children's outcomes. However, as posited by Stein and colleagues (2014), less is known about how children in different developmental stages internalize cultural values and act based on these values.

In a literature review about familism, Stein et al. (2014) proposed that although young children may show behavioral manifestation of familism, it is only in middle childhood (from 7- to 11-years old) that children will start internalizing this value and behave based on this internalization (being able to act without being told to do so; that is, autonomously). This calls attention to the importance of considering how values impact children at different ages (Tamis-LeMonda et al., 2008, Tudge et al., 2012).

Contextual factors also impact parental socialization practices among immigrant groups. For instance, the presence of ethnic communities in the context of reception will affect the opportunities of direct interactions with other members of the culture and access to resources. Ethnic institutions, such as churches and organized communities, provide opportunities of sharing cultural events and the use of the native language, for example (Moua & Lamborn, 2010).

### **Acculturation Issues and their Influences on Immigrant Families**

Individuals who emigrate to another culture face challenges related to having the influence of both values from the culture of origin and values from the host culture. Although there is no agreement as to whether children benefit or not from acculturation, the main idea proposed by the acculturation-gap-distress model is that the different paces at which immigrant children and their parents acculturate (children acculturate faster) will lead to family conflict and maladjustment.

This approach assumes that acculturation is unidimensional, in which, as people acculturate to the host culture, they reject the values from the culture of origin. However, acculturation is a much more complex process, especially within the family context (see for example, Birman, 2006; Koh, Shao, & Wang, 2009; Kwak, 2003; Schwartz, Unger, Zamboanga, & Szapocznik, 2010; Telzer, 2010).

Thus, scholars have argued that the acculturation-gap-distress model does not capture the full range of possibilities and influences on child development and family relations. For instance, some scholars have suggested that this model does not account for the possibility of parents being more acculturated than their children and differences in acculturation depending on the cultural context and domains (e.g., language, cultural values, identity, etc.) (Birman, 2006; Telzer, 2010; Tsai et al., 2012).

In contrast to the acculturation-gap-distress model, a bidimensional model suggests that acculturation occurs in two different dimensions: (a) the extent to which someone retain values and practices of the culture of origin and (b) the extent to which the host culture's practices and values are adopted. Moreover, acculturation is considered a multidimensional process, occurring at different paces across various domains (e.g., cultural values, practices, language, ethnic identity, media, and family obligations) (Birman, 2006; Telzer, 2010; Tsai et al., 2012).

These different acculturation domains have distinct implications for the adaptation of immigrants and for child development (Birman, 2006; Sabatier & Berry, 2008; Schwartz et al., 2010; Telzer, 2010). For example, immigrant parents' and children's acculturation may be similar or different depending on the life domain being considered (Koh et al., 2009).

Thus, the notion of bidimensional acculturation allows us to address how differences between parents and children in relation to both their specific culture of origin and the host culture impact their relationship and child development. Additionally, in line with the notion that acculturation can occur in various domains, it is possible that parents retain ethnic values in some domains and adapt to the mainstream host culture values in other domains.

Consequently, immigrant parents may view the adoption of some mainstream values as important to their children's adaptation (Koh et al., 2009; Patel, Power, & Bhavinagri, 1996). As reported in the studies of Moua and Lamborn (2010) and Raghavan and colleagues (2010) (mentioned in the previous section), immigrant parents recognized the importance of negotiation between ethnic cultural values and the host culture values for the adaptation and well-being of their children.

Parents' negotiation and encouragement of values from both the host culture and the culture of origin, as well as the influences of other contexts (such as school), allow children to develop bicultural competencies that are adaptive to their multicultural environment. Thus, to fulfill goals and demands of the context in an adaptive way, individuals may present a value orientation in some contexts and another in other contexts, which can be especially adaptive in the immigrant context (Kağıtçıbaşı, 2003; Koh et al., 2009; Schwartz et al., 2010).

Supporting this idea, Koh and colleagues (2009) found that East Asian parents of young adults were more autonomous than relational in the achievement domain and more relational than autonomous in the relationship domain. According to the authors, this finding indicated a

multifaceted aspect of the self, as suggested by Kağıtçıbaşı's perspective. In this sense, it is possible to discuss the selective nature of acculturation regarding different values, in which some values from the mainstream culture are adopted while still holding values from the culture of origin (Koh et al., 2009; Patel et al., 1996; Sabatier & Berry, 2008; Schwartz et al., 2010).

To understand the particularities of acculturation influences on child development, Phinney, Ong, and Madden (2000) suggested that different levels of comparison should be addressed. According to them, it should be questioned which processes are unique to immigrants in general, to each immigrant group in particular, as well as what processes can be seen in normative child development (occurring among most groups). For example, these authors found intergenerational differences among both immigrant and non-immigrant groups, suggesting that discrepancies in values between parents and adolescents are not necessarily exclusive of immigrant families.

Furthermore, it may also be helpful to include comparisons of immigrant groups with their counterparts who remained in the country of origin to understand what processes may be unique to the immigrant context. It is also important to consider that ethnic groups come from different backgrounds and have different immigration histories and conditions, which may influence acculturation and family relations in particular ways.

In general, acculturation gaps may have a diverse impact on family dynamics and child development depending on the specific ethnic group, the family circumstances, the domain of acculturation, the social resources families have access to, and aspects of the local host culture (Birman, 2006; Kwak, 2003; Schwartz et al., 2010; Telzer, 2010). Finally, although acculturation has been rarely considered across developmental stages, it is likely that this process takes place in different ways according to child developmental stage (Telzer, 2010).



Overall, given the great variability and complexity whereby context impacts child development, it is crucial to conduct studies that not only include a diverse sample but also seek to understand the mechanisms of cultural differences and similarities. The expression of gratitude seems like a good phenomenon to be investigated across cultures, given that gratitude may be influenced by both children's developing values (such as hedonism, self-, and social-oriented values) as well as parental values for their children.

Especially in the case of immigrant children, these values and the development of gratitude may be interrelated in a complex way, potentially impacting the development of gratitude differently than would be the case in other societies. Given this likely variation, in the next chapter I will discuss a theoretical framework that can be useful for the understanding of gratitude from a cultural perspective across both societies and ethnic groups. This framework considers parental values within the culture as one of the main mechanisms influencing the development of the self.

## CHAPTER III

### THEORETICAL PERSPECTIVE

#### Kağıtçıbaşı's Perspective of Culture and Self

Kağıtçıbaşı's (2007) theory of culture and self is defined as a contextual-developmental-functional approach, which emphasizes the way cultural aspects shape the self. Therefore, this approach is helpful to be used in cultural and cross-cultural research. Firstly, the contextual aspect stresses that human development should be inevitably understood within the family as the context, which in turn is situated in its sociocultural environment. According to Kağıtçıbaşı, her approach is somewhat in line with ecological theories, such as Bronfenbrenner's (2001, 2006). However, Kağıtçıbaşı's approach seems to consider socialization processes as unidirectional, not accounting for the influences of children on it, differently from Bronfenbrenner.

Secondly, this approach is developmental given that it proposes that it is not enough to simply establish or point to differences across contexts, but it is also necessary to understand *how* these differences come about. Lastly, Kağıtçıbaşı's (2007) perspective is functional, given that it seeks to understand *why* a certain type of development (rather than some other type) occurs in a given context, through comprehending its social and psychological adaptive mechanisms.

In this sense, the theory suggests that adaptive mechanisms can be considered as hints to comprehend the reasons certain selves develop within given cultures and family contexts. In general, the following questions serve as guidance to this approach: “*why* does a certain type of human development occur in a particular family context, and *why* does that type of family occur in a particular type of socioeconomic–sociocultural context?” (Kağıtçıbaşı, 2007, p. 3, emphasis in the original).

Furthermore, Kağıtçıbaşı's (2007) perspective is helpful to be used in cross-cultural studies given that it seeks to comprehend the dynamics in the functional relations among the society, the family, and the development of the self. Thus, a cross-cultural perspective allows scholars to address more variation than what can possibly be found in studies sampling from a single homogeneous culture. When studies cover greater cultural diversity, then, it is possible to better understand what is considered typical and atypical, which has implication for theories claiming universality. But one of the most beneficial aspects of cross-cultural research, as posited by Kağıtçıbaşı, is the possibility to foster greater "sensitization to culture" in academic knowledge (p. 19).

As seen in most of the research discussed in the previous chapters, and as stated by Kağıtçıbaşı (2007), human development has traditionally not been studied considering contextual influences. In fact, there is a tendency to use homogenous samples that are most likely not representative of a society to understand developmental processes, or to simply overlook cultural factors (although there have been some changes). Worse than that, findings in these studies are typically used to imply universal patterns (Arnett, 2008). Furthermore, for Kağıtçıbaşı, studies taking context into account should go beyond a simple description of different people, and focus more on the fundamental reasons for differences and similarities.

Overall, Kağıtçıbaşı's (2007) perspective of culture and self was derived from her studies about changes occurring in the value of children with increased socioeconomic development, which led to her family change theory. Later, based on the family change theory and questioning the individualism–collectivism notion of cultural variation, she proposed two distinct orthogonal dimensions—agency and interpersonal distance—confounded in these earlier unidimensional concepts.

These dimensions point to one of the most important characteristics of her theory—the possibility of concepts such as autonomy and relatedness to coexist, instead of being opposites (avoiding dichotomization). Another important characteristic of this theory is that it addresses the family, embedded in the culture, as a main source for the development of the self.

To understand Kağıtçıbaşı's ideas and propositions, I first discuss briefly her theory of family change and its relation with the self. Then, I examine her ideas of culture and self, and how they advance the understanding of cultural variation beyond the individualism–collectivism dimension. I also discuss how parenting may serve as a mechanism through which the self develops. Lastly, I examine how her ideas and propositions are relevant to the study of immigrant and within-society groups.

### **Family Change Theory and the Self**

For Kağıtçıbaşı (2007), it is important to situate the family within the macrosystemic context paying attention to its relations with social-structural and economic factors; this helps to understand distinct childrearing orientations among cultural groups. By exploring the relations between the society, family, and self, we can disentangle why a given socialization value and goal is present in a certain group and not in others.

Based on that, Kağıtçıbaşı and Ataca (2005) proposed a model of family change linked to shifts in values attributed to children in the family across different economic groups (upper-middle, middle, and lower SES), generations (adolescents, mothers, younger mothers, and grandmothers), and historical time (1975 compared to 2003), in urban and rural areas of Turkey. The findings of their study provided the basis for the family change theory's main propositions and models.

Overall, this theory suggests that, with socioeconomic development and increased education, children's economic/utilitarian value decreases whereas their psychological value

increases. These changes have implication not only for demographic shifts (e.g., lower number of children) but also for family relations (more emotional interdependence instead of material interdependence) and for the development of the self (more autonomous-related self).

Taking these changes into account, Kağıtçıbaşı (2007) proposed three different models of family interaction patterns within different contexts and a systematic prevailing change toward one of these models (the psychological/emotional family model, linked to an autonomous-related self). These three family-model manifestations are used to comprehend the functional/causal links between society/culture, family, and, the self predominant in different social contexts (as a product of interactions and socialization within each family model).

The three family models proposed by Kağıtçıbaşı (2007) comprise different combinations of characteristics that may overlap in some senses, and can also be considered as models of a resulting self. These family models are: (a) the model of interdependence, (b) the model of independence, and (c) a hybrid model of psychological/emotional interdependence.

The **interdependence model** is predominant among rural traditional societies with closely-knit interdependent family relationships, which is linked to the ideal notion of a culture of relatedness (collectivism) at both societal and family levels. Importantly, children's dependence is ensured through obedience-oriented socialization, which grants full incorporation of the child into the family, resulting in emotional and material interdependence—a relational self is developed in this context.

The **independence model** cultivates a culture of separateness (individualism), and is prevalent among Western societies, particularly in middle-class and urban families. The main features of this model are the separation of generations and more material and emotional investment in children rather than in the older generation. The socialization values and

interaction in this context encourages the development of a separated and independent self (with a well-defined boundary) and an autonomous orientation is emphasized.

However, as Kağıtçıbaşı herself and others (Coon & Kemmelmeier, 2001; Suizzo, 2007) have suggested, this model does not reflect the great diversity found in the U. S., concerning both ethnic and social-class variations. Therefore, it may reflect more an ideal or prototypical model than what is found.

Lastly, Kağıtçıbaşı (2007) called the third model the **psychological/emotional interdependence model**, in which emotional interdependence in the family and individual levels are found, but material independence is also present. This model is prevalent in developed/urban areas of the Majority World (developing societies), where a basis of cultures of relatedness is present. In terms of socialization, there is still an emphasis on the group, fostering psychological/emotional interdependencies, but individual values are also present, and autonomy is encouraged through socialization and interaction patterns.

Autonomy emerges as important in this last model because of the decrease of material dependence. Autonomy, then, is not seen as a threat to family integrity any more, and becomes functional for success in school and jobs in an environment that demands decision-making and agency rather than obedience. Nonetheless, emotional closeness is still valued. This model fosters the autonomous-related self, which integrates both autonomy and relatedness (two basic human needs).

Generally, building a theory of self- and self–other development derived from the theory of family change, Kağıtçıbaşı focuses on two interfaces as two basic human needs—autonomy and relatedness. The self-development theory explores the links between (a) sociocultural aspects and lifestyles, (b) family structure and family system, (c) family interaction and childrearing, and (d) the development of the self. It is important to stress that, for Kağıtçıbaşı (2007), value

differences should be considered in degrees, rather than in qualitatively different groups. The relations between culture and self are discussed next.

### **The Culture and the Self**

Kağıtçıbaşı (2007) stated that the self develops out of social interaction and is socially situated (contrary to personality traits). The self can be differentiated in relation to its boundaries; on the one hand, it can present well-defined boundaries, indicating a self-contained, individuated, separate, independent self. On the other hand, it can have more fluid boundaries, which indicates a more relational and interdependent self.

This difference is true for self- and social-perceptions (perception of others), and can be seen more as degrees of variability than a sharp binary contrast. Nonetheless, according to Kağıtçıbaşı (2007), cross-cultural research tends to address cultural differences in the self as symmetrical opposites rather than as varying in different degrees on a continuous dimension. This is especially so because research tends to address polarized cultures, maximizing differences, and disregarding potential similarities. The most dominant constructs to understanding differences across cultures are the individualism–collectivism (I–C) dimension.

Hofstede's (2001/1980) work is one of the most important introducing the I–C dimension, which has long been considered the most important dimension of cultural variation, despite the other several cultural dimensions presented by this author. As stated by Hofstede, these constructs should refer to cultures and not individuals, even though it has also been used at the individual level. From this perspective, these opposite value orientations differentiate a cultural focus on (a) feeling connected to the group, obedience to the elderly, and traditions (collectivism), from a focus on (b) thinking in a self-directing way, becoming relatively autonomous, and separated from others (individualism; Hofstede, 2001/1980; Oyserman et al., 2002; Raeff, 2010; Triandis, 1989, 1993, 2001).

Individualistic and collectivistic values are also assumed to be related to different construals of the self, others, and the interdependence of the self and others on a personal level, and are linked to different individuals' experiences, cognitions, emotions, and motivations. Whereas most people from cultures predominantly valuing collectivism would develop an interdependent self, the ones from individualistic cultures would develop an independent self (Markus & Kitayama, 1991; Raeff, 2010).

Kağıtçıbaşı (2007) suggested that some of the reasons the I–C dimension is popular is because it refers to a culture-level explanation for behavioral differences, serves as theoretical basis to make sense of human diversity, and is also a “simple” concept in a single dimension. For Kağıtçıbaşı, however, these concepts are in fact far from simple. She proposed that the I–C dimension is not unidimensional and suggested that we distinguish between two main orientations embedded within the I–C dimension—a **values orientation** and a **self-orientation**.

The values orientation is mainly related to what Kağıtçıbaşı (2007) called **normative I–C**, and it is reflected in either hierarchical or egalitarian human relations, dealing with whether one's interests are subordinated to group interests (C) or to oneself (I). In contrast, the self-orientation perspective reflects a **relational I–C** addressing the self–other relations, in which the degrees of separateness–connectedness of one's self in relation to others is the key.

Regarding normative I–C, given that social norms and values are likely to be different, the focus on I–C as a value orientation changes from more hierarchical relations (heteronomous) to more egalitarian ones (autonomous). However, even with a shift from one side of the dimension to the other (heteronomy → autonomy) that usually occurs with modernization (indicating less material interdependency), close emotional bonds between generations may continue (as proposed by the family change theory), suggesting another dimension. Therefore,



the relational aspect is proposed to reflect another construal of the I–C, linked to a relational dimension.

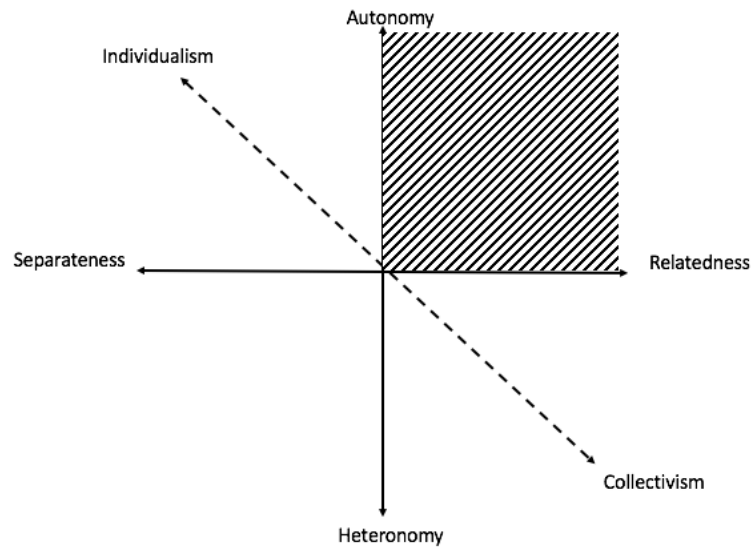
Kağıtçıbaşı (2007) pointed that normative collectivism is related to power distance (as proposed by Hofstede) and hierarchy (as suggested by Schwartz), as well as to vertical collectivism (found in Triandis' ideas). On the other hand, the relational aspect of I–C is linked to the boundaries of the self in relation to oneself and others (Markus & Kitayama, 1991; Raeff, 2010). It is important to note that, for Kağıtçıbaşı, the relational construal of the self is not necessarily linked to quantitatively more emotional bonds, but with the structure of the self and its boundaries that allows a more merged sense of self.

Thus, whether the boundaries of the self are well-delimited or fluid is one way to look at cultural variation (degree of relatedness–separateness), which is different than whether there is group hierarchy or equality (autonomy–heteronomy). These differences can be seen at different levels, such as cultural, familial (group–interpersonal), and individual levels.

Based on that Kağıtçıbaşı (2007) proposed two distinct orthogonal dimensions embedded in the I–C dimension—one related to **agency**, which is a disposition to act less or more willfully, and the other to **interpersonal distance**, which is linked to the degree of connectedness with others. Autonomy can be defined as willful agency or “self-governed or ruled,” in contrast to being ruled by someone else (heteronomy). She used these terms in a similar way to Piaget, with heteronomous morality referring to being subject to others' rules or being governed from outside. The interpersonal distance dimension is related to self–other relations reflected in the degree of connectedness with others.

Kağıtçıbaşı (2007) proposed that the agency and interpersonal dimensions are orthogonal (independent) and can be found to be correlated or fit together. Importantly, autonomy and relatedness can be considered basic human needs (she uses Self-Determination and Attachment

theory as a basis for that), and, thus, can coexist. Several studies provide evidence for the compatibility between autonomy and relatedness values (e.g., Coon & Kemmelmeier, 2001; Oyserman et al., 2012; Strauss, 2000; Seidl-de-Moura et al., 2008, 2013a, 2013b; Suizzo, 2007, Tamis-LeMonda et al., 2008; Tudge et al., in press). Figure 2 shows Kağıtçıbaşı's perspective in relation to the I–C perspective.



*Figure 2. Kağıtçıbaşı's Perspective in Relation to the I–C Perspective*

The two cultural dimensions proposed by Kağıtçıbaşı (2007) integrate her family change theory and her self-development theory. When considering the different family models, parenting values, and the resultant self, it is possible to combine the two dimensions forming a fourfold model, which differs in terms of levels of agency (autonomy–heteronomy) and personal distance (relatedness–separateness).

Specifically, there is (a) the family **model of independence**, which fosters self-reliance and not so close connections with others, resulting in an **autonomous-separate self**; (b) the family **model of psychological/emotional interdependence**, in which emotional relations and

autonomy are encouraged, resulting in an **autonomous-related self**; (c) the **hierarchical neglecting family**, marked by a neglecting, indifferent orientation (low in autonomy and relatedness), resulting in a **heteronomous-separate self** (which Kağıtçıbaşı felt would reflect a pathological pattern); and (d) the family **model of interdependence**, linked to obedience-orientation but also valuing close connections, resulting in a **heteronomous-related self**.

Kağıtçıbaşı (2007) suggested that the values in these dimensions at the cultural level help to understand childrearing and socialization orientations, given that it provides links between the sociocultural variables and the self. Of particular interest, is Kağıtçıbaşı's proposition that the ways in which the self develops also has implications for **moral thinking**. She posited that cultures of relatedness seem to have greater impact on moral responsibilities, as relatedness involves a focus on others that may be linked to a sense of moral obligation, which does not necessarily mean lack of agency.

Overall, Kağıtçıbaşı suggested that typically the causes of the different development of the self have been examined in a limited manner, usually with scholars loosely using the I–C dimension to understand cultural differences in several aspects of development and psychological functioning. Given this limitation, she proposed that further analysis of the underlying society–family–socialization interfaces should be conducted. Parenting, thus, is an important mechanism to understand the development of the self, as it seems to mediate cultural values and the development of the self.

### **Parenting and the Development of the Self**

In Kağıtçıbaşı's (2007) perspective, parenting practices are key to the understanding of human development and are shaped by meanings conveyed by culture, but also are “cultural” themselves (expressed in the proximal level). That means that parenting is not only influenced by

cultural values but also produces cultural values. She proposed different and important ways to explore the interface between cultural values, parenting, and the development of the self.

As I have described, it is possible to show different types of self across cultural groups varying in different degrees from separated to related, as well as to explore values varying from heteronomous to autonomous along different developmental spheres, including morality.

Kağıtçıbaşı (2007) also proposed that scholars should explore what socialization values stimulate different selves (not only whether there are different selves across cultures), and why a certain socialization practice happens in a certain context and not in others.

Kağıtçıbaşı (2007) stated, “human development is **socialization**, together with maturation” (p. 28, emphasis in the original). This socialization is linked to a continuous process of becoming a social being, which encompasses lasting interactions with the sociocultural context. These interactions are essential to understand human development within the contextual and historical time dimensions.

For Kağıtçıbaşı (2007), socialization processes aim to facilitate children to become competent members of their cultural group. Being competent socially and cognitively is related to what is culturally valued (considering that different cultural groups exist within any society). Culture, then, is a source of meaning to one’s beliefs, values, and behaviors, with similar behaviors having different meanings across contexts. Thus, human development can only be understood when contextually situated.

From Kağıtçıbaşı’s (2007) perspective, children’s socialization has a direct implication for the development of the self, given that socialization goals are based on cultural demands. Typically, the fluid self is seen in sociocultural and economic contexts where close relations and social responsibility are important and emphasized in socialization. In contrast, the separated self

is seen in contexts where close connections are less emphasized and individuation is viewed as optimal.

According to Kağıtçıbaşı (2007), there is a need to explore in which ways family socialization values are influenced by the socioeconomic-cultural context and in turn impact childrearing, and the development of the self. Family, then, has a crucial role in the relations between society and self, with parenting beliefs and practices representing an essential source of the development in context, given the influences of the macrosystem on parenting. This means that parenting may function as a mediator between macrosystemic factors and the development of the self.

In line with that, Harkness et al. (2010) proposed that cultural metamodels are a conjunction of ideas that characterize cultures and function as organizers of human development. Parental ethnotheories (culturally negotiated and shared beliefs about childrearing) mediate the relation between cultural metamodels and behavior; therefore, parenting is essential in understanding differences in the development of the self and children's outcomes. Parental ethnotheories are reflected on parents' socialization goals and practices. Different practices will, then, result in different developmental trajectories (Harkness et al., 2010; Keller, 2007; Keller et al., 2006).

In sum, from Kağıtçıbaşı's perspective (2007), it is crucial to recognize cultural diversity, which can be understood through different dimensions of the self and of human relationships at different levels (cultural–familial–individual). One of the key notions of her approach is the idea of the adaptive self, which is related to the functionality of the pattern of values and behaviors necessary for optimal adaptation and development; this will change according to the demands of the context and it is reflected in parental socialization.

## **Immigration and the Autonomous-Related Self**

Kağıtçıbaşı (2007) pointed out that acculturation overlaps with development, and it is usually difficult to unravel these processes. Nonetheless, for her, a developmental approach can clarify these processes. Kağıtçıbaşı (2003, 2007) stated that her theoretical perspective is helpful in understanding these processes among immigrant groups, given that it recognizes the possibility of a hybrid cultural identification. According to Kağıtçıbaşı (2003)

This theoretical perspective has special relevance for immigration, since immigrant groups maintain their collectivistic cultural value of embeddedness, while adjusting to the new life styles in the host society that render autonomy adaptive. Thus rather than construing autonomy and embeddedness as polar opposites, a recognition of their distinctness and possible coexistence helps understand the apparently conflicted immigration context better. (p. 146)

Particularly among immigrants, it is important to understand how different value orientations and ethnic identification influence both parental socializations goals and their practices. Studies have suggested that parents in immigrant families encourage values from their culture of origin as well as values present in the host society (depending on the domain), evidencing a complexity in family dynamics (Kağıtçıbaşı, 2007). These complex processes will impact child development in different ways. Nonetheless, children's cultural orientations toward their country of origin and host country will also impact how parental socialization goals take place. Also, this process is not static, but changes across different developmental stages.

Kağıtçıbaşı (2007) also called attention to the greater adaptive value of cultural integration, also referred as biculturalism. This can be considered a more enriching acculturation strategy, given that the culture of origin and the host culture are merged together to make sense of the world. Thus, for Kağıtçıbaşı, the underlying basis in the immigrant context is the encounter

between the culture of relatedness (predominant in most migrating countries) and the culture of separateness (prevailing in most host societies).

For instance, autonomy is considered adaptive in most host cultures, which can be captured in children's and adolescents' everyday experiences in social institutions such as school. Also, a sense of relatedness with parents will likely fulfill the need for connection and provides warmth and security. It is possible, however, to find "cultural lags" in some families in which values of conformity or respect for cultural traditions endure, even if these values are not adaptive in the immigrant contexts (Kağıtçıbaşı, 2007).

Kağıtçıbaşı (2007) proposed that encouraging the development of the autonomous-related self among immigrant groups is potentially beneficial, given that it helps to promote well-being and adaptation among immigrant children. This can be attributed to contextual demands for autonomous action, and, at the same time, advantages coming from the psychological/emotional support offered by closeness. In this sense, Kağıtçıbaşı reaffirmed that relatedness within the family context is not an obstacle for encouraging autonomy, and, in fact, can strengthen each other.

Therefore, the family and the self are the basis of acculturation and developmental processes. New environmental demands are created in the contact between original cultural and mainstream host cultural values, influencing changes and adaptation in the self-family dynamics, beyond what is found simply during developmental changes. Besides that, however, there are great variability within the host cultures that cannot be overlooked, which may impact immigrants in particular ways.

### **Within-Society Variation and the Self**

Several scholars have suggested that within-society variations should not be overlooked (Harwood et al., 1999; Tudge et al., 2000). Indeed, evidence of within-society variation has been

provided by scholars, especially in multicultural societies like the U. S., challenging the notion of the prototypical Western family system as independent, separated selves (Coon & Kemmelmeier, 2001; Oyserman et al., 2012; Suizzo, 2007).

In contrast to a view that homogenizes a single society as either individualistic or collectivistic, Coon and Kemmelmeier (2001) provided evidence of cultural variations within four ethnic groups in the United States. Using a meta-analytic approach, they showed that, compared to European Americans, Asian Americans and African Americans scored higher in collectivism. Interestingly, African Americans also scored higher in individualism than did European Americans. These findings are interesting because they provide evidence that collectivism and individualism are not necessarily contradictory values.

In lines with that, Suizzo (2007) posited that parental goals and values for their children varied in some aspects across ethnic groups within the U. S., but were similar in other aspects. Her findings indicated that all ethnic groups valued some dimensions of both independence and interdependence (also suggesting the coexistence of independence and interdependence among cultural groups). Moreover, Suizzo (2007) found that ethnicity explained differences in values of tradition and conformity, relatedness, benevolence and prosocial values, agency and self-direction, and power and achievement.

Ethnic minority groups valued more goals linked to conservatism (tradition) and self-transcendence (e.g., benevolence) than did European American parents (after controlling for parental education). Nonetheless, Suizzo (2007) did not find support for the notion that European American parents would value more self-enhancement values than would parents in ethnic minorities. Overall, her results showed that relatedness was valued across groups, but agency was greater valued among African Americans and Mexican Americans. She suggested that this



may be linked to greater exposure to discrimination and greater need to foster agency and self-confidence among minority groups.

Within-society variation has also been found in Brazil. For instance, Tudge et al. (in press), using the cultural-ecological theory, indicated differences in childrearing values and beliefs within Brazilian region, parental educational level, and income. For these authors, these variations are strongly related to parent–child daily activities and interactions.

Further evidence has showed that educated and urban mothers in Brazil valued higher degrees of autonomous-related self than did less educated mothers in small cities. In several studies about socialization goals of Brazilian mothers in urban areas, Seidl-de-Moura and colleagues (2008, 2009, 2013a, 2013b) found that they valued both self-maximization (goals linked to self-confidence and independence, related to autonomy), and proper demeanor (goals linked to appropriate behavior in a group context, linked to relatedness).

Also, the research of Seidl-de-Moura and colleagues (2008, 2009, 2013a, 2013b) further indicated that child-rearing values and beliefs differed to some extent among families coming from different regions, city sizes, and educational background. Whereas mothers from different regions varied somewhat in the weight ascribed to autonomy and relatedness, mothers from larger cities and more educated mothers were more likely to value autonomy than did those in small cities and the less educated mothers. Interesting, however, is that, despite this difference in the balance between autonomy and relatedness, Brazilian mothers seemed to value both autonomy and relatedness overall.

In general, these studies showing within-society variability point to the importance of moving beyond simple comparisons that use countries as a proxy for a single homogeneous culture. That is, it is important to take into account that societies can be considered cultural

groups in comparison with other societies, but within any given society there can be found different cultural groups.

### **Hypotheses**

Considering that gratitude (as a moral virtue) emphasizes interpersonal relationships, the recognition of others' points of view, and willingness to repay autonomously, and that connective gratitude is the type of gratitude that is closest to a moral virtue, it is possible to think of its expression in relation to Kağıtçıbaşı's (2007) value orientations. This link can be made both on a personal level and considering parental socialization goals related to these values. Specifically, on a personal level, connective gratitude could be associated with autonomous and relatedness values, given that it is likely to involve autonomous reciprocation and closer connections with others. In contrast, concrete gratitude may reflect a self-centered way of reciprocating a benefit, given that it does not include considering others' perspectives.

Also, parenting is an important mechanism through which children's *self* develops (Kağıtçıbaşı, 2007). On the one hand, parents who encourage children to think and act in a more self-directed way (autonomously) as well as stimulate them to think and act considering the social group (relatedness), will be more likely to raise children and adolescents who express connective gratitude (and eventually develop moral-virtue gratitude). On the other hand, parents who encourage children to simply comply (heteronomy) and to think and act taking themselves more than others into account (separated) will be more likely to have children and adolescents who express concrete gratitude. Given that no study has addressed how parental values impact children's gratitude, there is no reason to believe that these values will have different functions across societies and ethnic groups.

Furthermore, materialism and gratitude seem linked to opposing values. Whereas the development of gratitude involves being able to shift from a focus on the self to others,

materialism involves a focus on one's self. Thus, materialism is mainly linked to self-centered goals and gratitude to interpersonal relationships. Based on that, it is likely that hedonistic values (linked to materialism) will be found to be inversely related to connective gratitude and positively associated with concrete gratitude (as it reflects a self-centered way to express gratitude). No hypotheses are proposed in relation to verbal gratitude, as it may involve an understanding of intentionality and an appreciation of the benefactor's wishes and needs or it may simply indicate the expression of politeness (La Taille, 2000).

The hypotheses that follow, then, are based on the two cultural dimensions proposed by Kağıtçıbaşı's (2007) theory—**agency** and **personal distance**, as well as on evidence of differences in cultural values across and within societies. Moreover, the hypotheses are derived based on the notion that materialism and gratitude are opposing values. It is important to say, however, that given that not many studies have addressed gratitude across different societies and that none have investigated this topic across ethnic groups, these hypotheses are tentative and solely based on potential differences in the personal distance and agency cultural dimensions. That is, Kağıtçıbaşı's theory of culture and self is used as a basis to develop hypotheses, given the lack of empirical evidence on the differences and similarities in the expression of gratitude across societies and ethnic groups. The specific research questions and hypotheses for this study are:

**Research Question 1:** Do parents across ethnic groups and societies hold different values for their children linked to relatedness, separateness, autonomy, and heteronomy?

- *Hypothesis 1.1.* These four values will be found across cultural groups; relatedness will be negatively associated with separateness, while heteronomy will be negatively correlated with autonomy, reflecting the four values in two dimensions proposed by Kağıtçıbaşı (2007).

- *Hypothesis 1.2.* Brazilian immigrant, Hispanic, and African American parents will hold greater relatedness and less separateness values than will European Americans. These groups will not differ in relation to autonomy and heteronomy. These hypotheses are based on findings indicating that European Americans value relatedness to a lesser extent and minority groups tend to value more self-transcendence than do European Americans (Coon & Kemmelmeier, 2001; Suizzo, 2007).
- *Hypothesis 1.3.* Brazilian and Brazilian immigrant parents will hold greater relatedness and less separateness values than will North American parents (sample including African Americans and European Americans). These groups will not differ in relation to autonomy and heteronomy. These hypotheses are based on findings indicating that, in general, Brazilians are high on both autonomy and relatedness (Seidl-de-Moura et al., 2008, 2013a, 2013b; Tudge et al., in press), and North Americans are relatively lower in relatedness (Coon & Kemmelmeier, 2001; Oyserman et al., 2012; Suizzo, 2007).

**Research Question 2:** Do children across ethnic groups and societies differ in the way they express gratitude to a hypothetical benefactor who they believe would grant their greatest wish (controlling for age and gender)?

- *Hypothesis 2.1.* Children in the different cultural groups will express gratitude similarly, with three predominant patterns (e.g., a high probability of expressing connective and low likelihood of also expressing concrete or verbal gratitude concomitantly).
- *Hypothesis 2.2.* Brazilian children in the U. S. will be more likely to express a typology of gratitude with high probability of connective rather than concrete gratitude than will European American children; they will not differ in relation to Hispanic and African

American children. This hypothesis is based on findings showing that minority groups tend to value more self-transcendence than do European American (Suizzo, 2007).

- *Hypothesis 2.3.* Brazilian children in the U. S. will be more likely to express a typology of gratitude with high probability of connective gratitude rather than concrete gratitude than will either North American children or their counterparts in Brazil. This is based on Kağıtçıbaşı's (2007) idea that relatedness within the family context and autonomy encouraged in the host country can be considered as strengthening each other.

**Research Question 3:** Do children's expressions of gratitude vary according to whether they expressed hedonistic, self-, and social-oriented wishes (controlling for age and gender)? Are the relations between expression of gratitude and children's values similar or different across societies and ethnic groups (moderation)?

- *Hypothesis 3.1.* Children who express hedonistic wishes will be more likely to express a typology of gratitude with high probability of concrete gratitude rather than connective gratitude. This relation will be found across societies and ethnic groups (no moderation is expected). This hypothesis is based on findings suggesting that while gratitude emphasizes interpersonal relationships and the recognition of others' points of view, materialism is mainly linked to self-centered goals, such as envy, selfishness, stinginess, and so on (e.g., Bauer et al., 2012; Burroughs & Rindfleisch, 2002; Kasser & Ryan, 1993; Roberts et al., 2015).
- *Hypothesis 3.2.* Children who express self- and social-oriented wishes will be more likely to express a typology of gratitude with high probability of connective gratitude rather than concrete gratitude. This relation will be found across societies and ethnic groups (no moderation is expected). This hypothesis is based on the idea that only

children who have developed an autonomous moral sense can be considered as feeling and expressing gratitude autonomously (Castro et al., 2011; Freitas et al., 2011; Nelson et al., 2013; Tudge, Freitas, & O'Brien, 2015; Wang et al., 2015). Self-oriented wishes involve autonomy in the sense that they reflect self-directedness in the future (e.g., being able to succeed for oneself). Social-oriented wishes involve autonomy given that they show a spontaneous sense of benevolence toward others (not necessarily because others told them to behave this way).

**Research Question 4.** Will parental values for their children impact their expressions of gratitude (after controlling for age and gender)? Will the relation between parental values and children's gratitude vary across societies and ethnic groups (moderation)?

- *Hypothesis 4.1.* Parents who hold higher relatedness and less separateness values, and higher autonomous and less heteronomous values will have children who are more likely to express a typology of gratitude with high probability of connective gratitude, rather than concrete. These hypotheses are based on the idea that gratitude, as a moral virtue, is linked to autonomous thinking and relatedness with others (Castro et al., 2011; Freitas et al., 2011; Nelson et al., 2013; Tudge, Freitas, Mokrova et al., 2015; Wang et al., 2015).
- *Hypothesis 4.2.* The associations between parental values and children's expressions of gratitude will function in similar ways across societies and ethnic groups (that is, societies and ethnic groups will not moderate the relation between parental values and gratitude).

## **CHAPTER IV**

### **METHODOLOGICAL STRATEGIES**

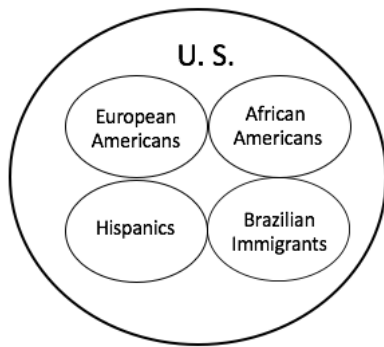
#### **Sampling Procedures and Characteristics**

This study is part of a larger cross-cultural project (the Developing Gratitude Research Project: DGRP) that includes data from participants in seven countries (Brazil, China, Guatemala, Turkey, Russia, South Korea, and the United States). Including samples from diverse cultural backgrounds to understand development is crucial. This is especially so if we consider that most of studies in human development have been conducted with North American children and adolescents from European American and middle-class backgrounds, which represent only a small proportion of the world's population.

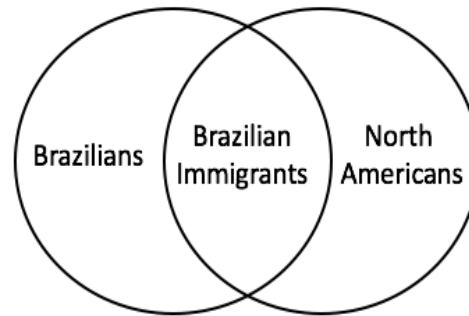
Overall, research has been typically assumed an implicit generalization; that is, authors write generically about “children” and “adolescents” rather than “North American children drawn from a primarily middle-class and European American population,” or whatever their sample consisted of (see for example, Arnett, 2008; Henrich, Heine, & Norenzayan, 2010; Tomlinson & Swartz, 2003). Moreover, as addressed by Shadish, Cook, and Campbell (2002), to increase external validity, it is important to include populations from different settings to investigate the extent to which an effect holds (or not) across different contexts.

Based on that, the analyses in this study are focused on comparisons across two different sets of samples: (a) firstly, recognizing the great diversity within the North American context, I conducted analyses comparing four ethnic groups within the U. S.—African Americans, European Americans, Hispanics, and Brazilian immigrants; and (b) secondly, when possible, I conducted analyses comparing non-immigrant children's expressions of gratitude in the U. S.

(Greensboro, North Carolina), in Brazil (Porto Alegre, Rio Grande do Sul), and Brazilian immigrants in the U. S. (in North Carolina, Georgia, and Massachusetts). Although the latter group is situated within the U. S., for this second analysis it was considered as a separate group. This was done to capture differences and similarities among Brazilian immigrant children and Brazilian children who remained in the country of origin, as well as non-immigrant children in the host country (African Americans and European Americans). These sets of group comparisons are represented in Figures 3 and 4.



*Figure 3. Ethnic Groups Comparison Level*



*Figure 4. Societal Groups Comparison Level*

An important strategy in dealing with different cultures is to provide information about participants' contexts. For contextualization purposes, then, I provide overall demographic information about the places from where the samples addressed here were drawn.

Porto Alegre is the capital city of the southern-most state in Brazil with approximately 1,481,000 inhabitants. Around 56.6% of individuals (15-year-olds or older) had a high school diploma and 48.7% (25-year-olds or older) completed a college degree by 2010 (Instituto Brasileiro de Geografia e Estatística [IBGE], 2010). In the nineteenth century, the Brazilian government actively recruited immigrants (primarily from Germany, Italy, and Portugal) to move to this city. Only a small proportion are people who would be considered Black and there is a



great variability in SES in the city (Tudge et al., 2006). Greensboro, by contrast, is a city of approximately 285,000 inhabitants, of whom about 48.4% are European Americans, 40.6% are African Americans, and 7.5% are Hispanics or Latinos. Regarding education, 88.4% of the population (25-year-olds or older) have completed high school and 36.3% have a Bachelor's degree or higher (United States Census Bureau, 2010, 2014). The city's history is deeply linked to issues of race and the civil rights movement (Tudge et al., 2006).

Limited demographic information is provided about Brazilian immigrants in the U. S. This may be due in part to a mismatch between the official estimated number of Brazilians in the U. S. and the number reported by the Brazilian Ministry of Foreign Affairs (2015) (340,000 versus 1.3 million Brazilians). Brazilian immigrants come from various states in Brazil, including Minas Gerais, Goiás, Paraná, and Santa Catarina (Lima et al., 2016; Marcus 2009a, 2009b; Siqueira & Jansen, 2012), with the majority living in Massachusetts (22.8%, 300,000 Brazilians; Brazilian Ministry of Foreign Affairs, 2015). In this state, most Brazilians work in cleaning services, construction, and food services (Lima et al., 2016; Siqueira & Jansen, 2012).

The Atlanta area is considered a new gateway for Brazilian immigrants (Marcus, 2009a, 2009b), with an unofficial estimate of 30,000 Brazilians, around 70% of whom are from Goiás (Menezes et al., n.d.). Like their counterparts in Massachusetts, most Brazilians in this area work in construction and cleaning jobs (Global Atlanta Snapshots, n.d.; Menezes et al., n.d). In relation to education, Portes and Rumbaut (2014), based on Census data, reported that 33.9% Brazilian immigrants have a college degree and 85.3% a high school degree. However, these data do not include Brazilians not included in the Census (the majority). Siqueira and Jansen (2012), in their study with 500 Brazilian workers in Massachusetts found that 77% had a high school diploma or less and only 23% had at least some college (more information about Brazilians in the U. S. was provided in Chapter 2).

For the present study, diversity in terms of both ethnic and SES background was sought through the selection of schools in neighborhoods with different levels of ethnic composition and affluence in Greensboro. For that, we used information about school composition found in school districts' and schools' webpages. The samples drawn from Greensboro consisted of families coming from a diverse range of parental educational backgrounds, except for the Hispanic group. This is so given the very low numbers of Hispanic children in the schools in the more affluent neighborhoods.

For the Porto Alegre sample, children from diverse SES backgrounds were accessed through public and private schools. According to Guzzo and Filho (2005), social-class differences have been reproduced for many years in the educational system in Brazil. The low quality of public schools reflects the level of SES of the students who attend them; parents who have the financial resources to pay for a private school (middle-class parents) typically do so, believing that the educational quality of private schools is superior (Vargas, 2009; Zago, 2006). Based on that contextual characteristic, private and public schools are markers of different SES in the Brazilian context.

Lastly, for Brazilian immigrants, a diverse sample in relation to SES was obtained through both contact with institutions (such as after school programs, churches, and language schools) in areas with higher concentrations of Brazilians and snowballing. Brazilians accessed through institutions included mostly individuals working in blue-collar jobs, as expected, given the demographic information from Georgia and Massachusetts mentioned above. Brazilian families from the middle-class were recruited via snowball, as many families from Brazil are employed in white-collar positions in large companies in the U. S.; this group represents a more educated Brazilian population.

### Sample Characteristics

For the comparison across ethnic groups within the U. S., the sample included a total of 467 children and adolescents (aged 7 through 14)—27.6% were European Americans (mean age = 11.05,  $SD = 2.01$ , 65.3% female), 20.5% Brazilians (mean age = 9.49,  $SD = 2.1$ , 57.27% female), 19.8% Hispanics (mean age = 9.27,  $SD = 1.85$ , 47.2% female), 19.2% African Americans (mean age = 10.49,  $SD = 2.06$ , 41.7% female). A total of 9% were categorized as “other” ethnicity (participants who were mostly from Asia, including China and Vietnam) and were not included in the analyses; only data from the four main ethnic groups were used.

For the societal comparison, data from a total of 614 children were analyzed—274 from Greensboro (mean age = 10.70,  $SD = 2.05$ , 55.1% female), 230 from Porto Alegre (mean age = 10.64,  $SD = 2.15$ , 53.26% female), and 110 Brazilian immigrants (mean age = 9.49,  $SD = 2.01$ , 57.27% female). The North American sample included African Americans (37.6%), European Americans (54%), and children with missing data on ethnicity (8.40%); children with missing data on ethnicity were included because they were drawn from schools with predominant African American students. Hispanics and children categorized as “others” were excluded from this comparison analysis. I decided not to include these groups in the country level analysis given that Brazilian immigrants were considered as a separate group and some information on immigration status was not measured for Hispanics (e.g., time in the U. S.). In addition, analysis including the Hispanic group will be already contemplated in the within-U.S. ethnic group comparison. Information about parental educational level across societies and ethnic groups is displayed in Table 1.

Table 1. Frequency and Percentage of Parental Educational Level by Ethnic Group and Society

U.S. Ethnic Groups			
	African Americans	European Americans	Hispanics
Elementary School	4 (2.9%)	1 (0.5%)	47 (37.3%)
Some High School	8 (5.8%)	5 (2.5%)	25 (19.8%)
High School	20 (14.5%)	8 (4.0%)	22 (17.5%)
Some College	50 (36.2%)	25 (12.6%)	10 (7.9%)
College	33 (23.9%)	84 (42.2%)	1 (0.8%)
M.S. or Equivalent	6 (4.3%)	38 (19.1%)	2 (1.6%)
PhD	1 (0.7%)	28 (14.1%)	1 (0.8%)
Missing	16 (11.6%)	10 (5.0%)	18 (14.3%)
<i>n</i>	<b>138</b>	<b>199</b>	<b>126</b>
Mean and <i>SD</i>	<b>4.00 (1.13)</b>	<b>5.18 (1.18)</b>	<b>2.10 (1.28)</b>
Societies			
	Brazilian in the United States	Brazilians	North Americans
Elementary School	9 (7.6%)	8 (3.5%)	5 (1.4%)
Some High School	4 (3.4%)	10 (4.3%)	17 (4.7%)
High School	22 (18.5%)	53 (23.0%)	30 (8.3%)
Some College	13 (10.9%)	16 (7.0%)	81 (22.5%)
College	23 (19.3%)	39 (17.0%)	120 (33.3%)
M.S. or Equivalent	37 (31.1%)	54 (23.5%)	47 (13.1%)
PhD	1 (0.8%)	10 (4.3%)	30 (8.3%)
Missing	10 (8.4%)	40 (17.4%)	30 (8.3%)
<i>n</i>	<b>119</b>	<b>230</b>	<b>360</b>
Mean and <i>SD</i>	<b>4.39 (1.62)</b>	<b>4.42 (1.59)</b>	<b>4.68 (1.31)</b>

*Note.* The North American sample included African Americans, European Americans, and 23 children with missing data on ethnicity.

Most of the Brazilian sample in the United States lived in Massachusetts (60%), followed by North Carolina (23.6%), and Georgia (16.4%). Approximately 90% of the families reported speaking Portuguese as the first language at home, and 37.3% used English as the second language. Around 96.4% of the parents completing the consent were born in Brazil, and 87.3% of the other spouses (from whom we had information) were born in Brazil; regarding the children's place of birth, 72.7% were born in the United States. Only 10.9% of the children chose to complete the questionnaires in Portuguese. The average time Brazilian families had lived in the U. S. was 11.58 years ( $SD = 6.22$ ). Almost 43% of respondent parents worked full-time, 22.7% worked part-time, and 28.7% did not work outside of the home (most of those had a spouse working in a white-collar position); of those who worked, most had blue-collar jobs, such as house cleaner, construction worker, baby sitter, secretary, driver, cook, etc.

For the Hispanics, most parents were born in Mexico (61.8%), followed by the United States (15.5%); about 7.2% of the parents were born in other Central America countries, such as Guatemala, El Salvador, and Honduras; 50.9% of the other spouses from whom we had information were born in Mexico. Most children were born in the United States (82.7%), with only 3.6% being born in Mexico; 2.8% of children completed the questionnaire in Spanish. No information was collected from this group regarding time living in the United States or their immigrant status. Around 69.1% of the sample reported speaking Spanish as the primary language of the household. Although there were missing data about working status (17.3%), 44.5% of parents did not work outside the home, 24.5% worked full time, and 13.6% worked part time. Of the parents who worked, the majority were blue-collar workers, such as cook, driver, hotel cleaner, etc.

Around 22.7% of African American parents did not work outside the home, 48.2% worked full-time, and 13.6% worked part-time (12.7% of data were missing); from the parents of

whom we had work information, over half worked in blue-collar jobs such as mail clerk, administration assistant, bus driver, cashier, cook, hair dresser, etc., and others worked in jobs such as teacher, nurse, manager, etc. For European Americans, 28% did not work outside the home, 14.6% worked part-time, and 50% worked full-time (6.1% of data were missing); most European American parents worked in white-collar jobs, such as attorney, physician, company director, company owner, professor, teacher, financial advisor, school director, etc. Regarding Brazilians in their home country, 22.2% did not work outside the home, 10.4% worked part time, and 62.6% worked full time (4.8% of the data was missing); no information on types of jobs was provided.

### **Data Collection Procedures**

Data collection for the DGRP was conducted in two parts—the first consisted of data collection with children and adolescents in schools (for the samples in Porto Alegre and Greensboro) and the second of in-home interviews. For the sample of Brazilian immigrants, data from this first part were collected in three states (Georgia, Massachusetts, and North Carolina) through Brazilian institutions (such as after-school programs, language schools, and churches) as well as using a snowball strategy.

Children in the target schools and institutions were given recruitment letters and consent forms to take home to their parents/guardians for school- or institution-based data collection. For the samples in the United States, a monetary incentive was given to teachers or instructors for each returned permission letter, regardless of parents' agreement for their children to participate or not. With that we expected to encourage teachers/instructors to gather the greatest number of consent letters possible and make sure parents had access to the letters.

For the recruitment of the first part, a demographic questionnaire (including information such as child's age, parents' and child's place of birth, language spoken at home, parental level of

education, job, etc.) and a measure of parental values for their children were sent home together with the letter of consent. Parents were asked to indicate on the consent forms whether they provided consent for themselves and their child's participation in Part 1 and 2; they also were asked to complete the questionnaires about parental values sent home with the consent and return to the school or institution. For the Brazilians recruited through snowballing, Parts 1 and 2 occurred in-home at the same day, using a combined consent form.

Children whose parents returned signed consent forms were themselves asked to give consent to participate and completed an in-school or institution survey that included measures of gratitude and wishes. The second part of the project consisted of in-home interviews with parents and children who agreed to participate in this part (10-20% of parents were recruited to the second part). Families completing the in-home interview received a gift card. For the present study, only data from the first part were used. All measures used in both parts of the project are displayed in Table 2 (measures used in this dissertation are highlighted).

Table 2. Measures used in the Developing Gratitude Research Project

Data Collection Instruments	Data Source
<b><u>Part 1</u></b>	
<b><i>Wishes and Gratitude Survey (WAGS)</i></b>	<b><i>Children (7- to 14-year olds)</i></b>
Gratitude Assessment Questionnaire-Child (GAQ)	Children (7- to 14-year-olds)
Child Materialism Questionnaire (CMQ)	Children (7- to 14-year-olds)
<b><i>Demographic questionnaire</i></b>	<b><i>Parents</i></b>
<b><i>Relatedness-Autonomy-Separated-Heteronomy (RASH)</i></b>	<b><i>Parents</i></b>
<b><u>Part 2</u></b>	
Gratitude Assessment Interview for children (recorded)	Children (7- to 14-year-olds)
Gratitude Vignettes (recorded)	Children (7- to 14-year-olds)
What I Expect	Children (7- to 14-year-olds)
Future Outlook Inventory	Children (7- to 14-year-olds)
Parents Development of Gratitude Interview (recorded)	Parents
Gratitude Assessment Questionnaire for Parent	Parents
Materialism Values and Socialization Questionnaire (MVSQ)	Parents
Ethnic and American Identity Survey (MIBI)	Parents
Portrait Values Questionnaire (PVQ)	Parents
Parents Values for their Children (PVC)	Parents

## Measures

### Independent Variables

**Ethnic Groups.** For the first set of comparisons, five groups were coded based on self-declared ethnicity/race and/or parent's place of birth: 1 = African Americans; 2 = European Americans; 3 = Hispanics; 4 = other; 5 = Brazilian immigrants ("other" ethnicities and participants with missing data on ethnicity were not included in this data analysis).

**Societal Groups.** For the second set of comparisons, three different groups were coded as follow: 1 = North Americans (including African Americans, European Americans, and 27 cases of missing data); 2 = Brazilians; 3 = Brazilian immigrants.

**Parental Values for Their Children.** The Related-Autonomous-Separate-Heteronomous (RASH) scale is a 30-item questionnaire measuring parents' values for their children. The RASH is composed of 4 sub-scales, each assessing the constructs proposed by



Kağıtçıbaşı's orthogonal cultural values. Parents completed how important each item is for their children when they become adult using a 9-point Likert scale (from "absolutely not important" to "supremely important"). Some sample items are: "*How important is it that your child, when an adult...:*" "...cares about others' feelings?" (relatedness sub-scale), "...tries to reach his or her goals without anyone else's help?" (autonomy sub-scale), "... does the things that other people expect of him or her?" (heteronomy sub-scale), and "... prefers to live alone?" (separateness sub-scale). The complete RASH scale is displayed in Appendix A.

Although Kağıtçıbaşı (2007) herself proposed three sub-scales to assess interpersonal distance and agency (the related-self sub-scale, the autonomous-self sub-scale, and the autonomous-related-self sub-scale), these measures do not address parents' values for their children in relation to these dimensions. Furthermore, there are a few problems with these measures. First, Kağıtçıbaşı's approach is that each of the orthogonal dimensions is assumed to be opposite (e.g., high autonomy is isomorphic with low heteronomy and high relatedness signifies low separateness). Nonetheless, it is important to assess whether these four constructs are indeed opposites; for instance, it is possible that parents want their children to be autonomous in relation to their family (autonomy), but still follow society's rules (heteronomy).

Moreover, some items proposed by Kağıtçıbaşı (2007) seem to be problematic; answering negatively to some items of the Autonomous-Self scale does not seem necessarily to mean valuing heteronomy, as she had suggested. For instance, disagreeing with items such as "People who are close to me have little influence on my decisions" and "I feel independent of the people who are close to me" (p. 195) are as likely to imply relatedness as autonomy.

Besides that, Kağıtçıbaşı (2007) used median scores to determine whether individuals belonged to one pole or the other of the interpersonal distance and agency dimensions, suggesting the existence of combined selves, even though she had previously stressed that these dimensions

should be addressed in degrees and not in categorical groups. This is important given that relatedness has been found to be valued to different degrees within groups in the U. S. as well as in other societies, such as Brazil. Thus, what may matter is whether a group values relatedness and autonomy more than others (and not whether a certain group can be categorized as related-autonomous). Finally, the scales proposed by Kağıtçıbaşı do not seem to have been used extensively across cultures, lacking validity for cross-cultural samples.

Given all these limitations, the RASH was created to reflect the values proposed by Kağıtçıbaşı's cultural dimensions' model, specifically as reflected in parental values for their children when they become adults. This measurement was also designed to allow participants to respond to questions from four different sub-scales, none of which is necessarily isomorphic with any of the others. This will allow testing whether a two-dimension model of cultural values, as proposed by Kağıtçıbaşı, is appropriate to understand cultural variations.

Initially items from the RASH were drawn on prior work as potential sources for the scales (Kağıtçıbaşı, 2007; Keller, 2007; Schwartz, 2003), and constructed collaboratively with researchers in various countries, being cognizant of potential relevance and translation issues. It was helpful that the team of people working on item construction consisted of natives of Brazil, Russia, China, Turkey, the United Kingdom, and the United States—as items were written, they were tested for meaning with people from each of these countries.

For the present study, the Portuguese version of the RASH was translated from the original English collaboratively by a group of bilingual researchers, including two native-Portuguese speakers (one professor and one graduate student), and one native-English speaker fluent in Portuguese. As this measure has not yet been published or validated, analyses of the items, factorial analysis (EFA and CFA), and measurement invariance were conducted to address whether parents in different cultural groups hold similar values and to different or similar degrees

(Research Question 1). It is important to investigate this before addressing other research questions, as this will determine whether some of the comparison hypotheses can be tested.

**Children's Values.** Values were derived from the answers to the first question in the WAGS ("What is your greatest wish?"); answers were categorized based on previous work by Freitas et al. (2016) and Tudge, Freitas, Mokrova et al. (2015): (a) hedonism (materialism, monetary, fame, and fantasy/magical wishes), (b) self-oriented wish (personal well-being, academic, and career wishes), (c) social-oriented wish (wishes for the family or others' well-being), and (d) others (1.9%). These types of wishes reflect values toward hedonism (linked to materialistic and ephemeral values), one self (linked to personal achievements in the future), and others (linked to affiliation and community values). Some examples of answers in the three categories are—Hedonism: "I wish for a million dollars" or "to have nerf guns;" self-oriented wish: "I become a professional soccer player" or "I get into Stanford;" and social-oriented wish: "for my parents to become citizens of America" and "help the elderly and homeless."

Each of these three main types of wish was dummy coded to reflect whether children expressed it or not (0 = No, 1 = Yes). A second judge coded around 24% or more of participants' answers; the intercoder reliabilities (Kappa) were between .92 and 1.00 for hedonism, .90 and 1.00 for self-oriented wishes, and .92 and 1.00 for social-oriented wishes. These types of wishes were entered simultaneously as predictors of gratitude. The frequencies of children's responses to this first question are shown in Table 3.

Table 3. Frequency of Observed Types of Wishes Across Cultural Groups

	African Americans	European Americans	Hispanics	Brazilians in the U. S.	Brazilians	North Americans
<b>HED</b>	52 (50.5%)	45 (30.4%)	62 (58.5%)	49 (44.5%)	113 (49.1%)	111 (40.5%)
<b>SELF</b>	46 (44.7%)	78 (52.7%)	34 (32.1%)	50 (45.5%)	127 (55.2%)	130 (47.4%)
<b>SOCIAL</b>	10 (9.7%)	27 (18.2%)	7 (6.6%)	15 (13.6%)	33 (14.3%)	41 (15.0%)
<b>HED &amp; SELF</b>	6 (5.8%)	4 (2.7%)	0	2 (1.8%)	30 (13%)	11 (4.0%)
<b>HED &amp; SOCIAL</b>	1 (1.0%)	1 (0.7%)	1 (0.9%)	0	3 (1.3%)	3 (1.1%)
<b>SELF &amp; SOCIAL</b>	1 (1.0%)	2 (1.4%)	0	2 (1.8%)	14 (6.1%)	5 (1.8%)
<b>HED &amp; SELF &amp; SOCIAL</b>	0	0	0	0	3 (1.3%)	1 (0.4%)
<b><i>n</i></b>	103	148	106	110	230	274

*Note.* HED = Hedonism; SELF = Self-oriented wish, SOCIAL = Social-oriented wish. The North American sample is composed of African Americans, European Americans, and 27 children missing data on ethnicity.

## Dependent Variables

**Gratitude.** The answers to the second question on the WAGS (“What would you do for the person who granted you this wish?”) were coded based on different gratitude types: (a) verbal, (b) concrete, (c) connective, (d) finalistic, (e) self-sufficient, (f) “I don’t know,” (g) no gratitude, and (h) other. Given that just a small proportion of children expressed the five last categories of gratitude (0.7% finalistic, 1.4% self-sufficient, 1.0% “I don’t know,” 0.8% no gratitude, and 5.9% other), only the three first main types of gratitude were used in the analyses.

Some examples of answers in the three categories are—Verbal: “say thank you” or “I would be forever grateful;” concrete: “give them a hug” or “give him/her a cookie;” and connective: “I would ask them how I could help them, and do what I am capable of to help that person” or “Anything they want.” As with children’s values, each of these three main types of gratitude were first dummy coded to whether children expressed it or not (0 = No, 1 = Yes). As with the wishes, a second judge coded 24% or more of participants’ answers. The intercoder reliabilities (Kappa) were between .89 and 1.00 for verbal, .91 and 1.00 for concrete, and .86 and 1.00 for connective gratitude. Given that some children expressed more than one type of gratitude, latent class analysis (LCA) was used to originate typologies of gratitude, which were then used as outcomes. The three main types of gratitude were used as indicators of the typologies of gratitude expression. The frequencies of observed types of gratitude are displayed in Table 4.

Table 4. Frequency of Observed Types of Gratitude Across Cultural Groups

	African Americans	European Americans	Hispanics	Brazilians in the U. S.	Brazilians	North Americans
<b>VB</b>	31 (30.1%)	50 (33.8%)	39 (36.8%)	41 (37.3%)	106 (46.1%)	87 (31.8%)
<b>CC</b>	42 (40.8%)	45 (30.4%)	33 (31.1%)	34 (30.9%)	55 (23.9%)	94 (34.3%)
<b>CV</b>	39 (37.9%)	64 (43.2%)	35 (33.0%)	43 (39.1%)	86 (37.4%)	112 (40.9%)
<b>VB &amp; CC</b>	5 (4.9%)	8 (5.4%)	5 (4.7%)	5 (4.5%)	16 (7.0%)	14 (5.1%)
<b>VB &amp; CV</b>	4 (3.9%)	14 (9.5%)	6 (5.7%)	4 (3.6%)	28 (12.2%)	19 (6.9%)
<b>CC &amp; CV</b>	5 (3.9%)	2 (1.4%)	1 (0.9%)	0	4 (1.7%)	7 (2.6%)
<b>VB &amp; CC &amp; CV</b>	0	1 (0.7%)	0	0	2 (0.9%)	1 (0.4%)
<b><i>n</i></b>	103	148	106	110	230	274

*Note.* VB = Verbal; CC = Concrete; CV = Connective. The North American sample included African Americans, European Americans, and 27 children missing data on ethnicity.

The two first questions in the WAGS (adapted from Baumgarten-Tramer, 1938) used here to assess levels of gratitude and wishes, were used in south Brazil by Freitas and colleagues (2011) with a sample of children and adolescents. They reported the translation of the two questions by showing children different versions of the instruments and asking for suggestions. The revised version was tested in a pilot study with 10 children and after that, it was used for the actual data collection.

Likewise, Tudge, Freitas, Mokrova and colleagues (2015) used the two original questions on the WAGS in a sample in the southeastern U. S. Given that Baumgarten-Tramer (1938) published her paper in English, no translations were necessary. Specifically, with immigrant children, one advantage is that these instruments were used in Portuguese, Spanish, and English; this is important because many immigrant children prefer English rather than their language of origin.

### **Control Variables**

**Children's Age.** Measured as a continuous variable from 7 to 14.

**Gender.** Males = 0 and Females = 1.

### **Analytic Strategies**

Descriptive data were analyzed using SPSS (Version 24). Mplus (Version 7.31) (Muthén & Muthén, 1998-2015) was used to run the preliminary analysis and to test the hypotheses. For the first research question, factorial analysis and measurement equivalence were used. For the remaining hypotheses, multi-group Latent Class Analysis (LCA) and multinomial regression were modeled using a maximum likelihood estimator with robust standard errors. Specifically, I used multi-group LCA to test for differences in the expression of gratitude across groups. As mentioned above, we used an open-ended measure of children's gratitude, with some children

expressing more than one type of gratitude (verbal, concrete, and connective) as a response to what they would do for a potential benefactor who they believed would grant their wish.

For instance, some children expressed both verbal and concrete gratitude, such as a child who wished “to be able to focus more on important things” and would “give them something in return (not too valuable) & thank them.” There were also children who expressed verbal and connective gratitude; for example, a child who wished “...to grow and have a family and have a good education...” and said, “I would thank them a lot and try to do something to make them feel as happy as I was when I was granted my wish.” Theoretically, the use of a combination of gratitude types makes sense, given that verbal gratitude may in fact express politeness (and not necessarily gratitude), which may be considered important concomitantly with the expression of the other types of gratitude. Thus, expressing thanks and gratitude taking other’s perspectives into account or concrete reciprocation may not be isolated phenomena.

In addition, it is possible, although perhaps to a lesser extent, to consider that concrete gratitude may occur in parallel with connective gratitude. For example, a child who said “I wish I could have a baby sister. I would like an iPhone too” and said, “I would get them some candy and what they want.” This is so, even if these types of gratitude may represent different cognitive levels, with the latter showing the ability to autonomously think from others’ perspective, which is not necessarily true for the former.

This is in accordance with Piaget’s theory, which suggests that children do not move from one stage to another instantly, but gradually—that is, the development of more complex social-cognitive abilities may occur **firstly in parallel** (Piaget, 1965/1932; Piaget & Inhelder, 1969/1966). Thus, it is possible that developing children may express concrete and connective gratitude in parallel. Alternatively, it is possible that reciprocation (as in concrete gratitude) is also valued by some groups, in conjunction with other forms of gratitude expression.



From a statistical standpoint, this cross-categorization imposes some challenges related to a lack of independency among types of gratitude; that is, these types of gratitude are not mutually exclusive. If considered as isolated, the same child could be counted as both expressing connective and concrete gratitude (for example); in this case, determining what contributes to the expression of gratitude may be hard to explore. Furthermore, it is possible that children in different cultural groups express gratitude differently by using distinctive combinations of gratitude types. If that were the case, it would be difficult to compare groups in terms of likelihood of expressing gratitude in a certain way, as some types of gratitude may be inflated.

Because of that, the use of LCA was chosen, with the types of gratitude being used as indicators to develop typologies of gratitude expression, instead of indicators being treated as observed types of gratitude. LCA is a measurement model that uses categorical indicators to identify sub-groups of participants with similar patterns of response, and it is, thus, considered a person-centered, instead of a variable-centered method (Geiser, Lehmann, & Eid, 2006; Muthén & Muthén, 1998-2015; Nylund, Asparouhov, & Muthén, 2007; Swartz, 2016). The first step in conducting LCA is to decide the number of classes that best fit the data; this class enumeration process is presented in the preliminary results section.

After that, ethnic groups (first comparison) and societies (second comparison) were entered as known class indicators in the model. In this step, multi-group LCA was used to investigate whether a latent class model fit the data similarly or differently across cultural groups (Swartz, 2016). If groups have similar latent class structures, we can conclude that children express gratitude in similar patterns; that is, the way children express gratitude is consistent across groups.

Only if we have similar latent class structures, can we move on to the next step and test for differences in the extent to which children across groups express each typology of gratitude.

Therefore, first qualitative differences were tested (whether conditional probabilities of class indicators have similar structure across groups) and, then, quantitative differences were explored (whether there were differences across groups in the proportions of individuals in each class) (Clark & Muthén, 2009; Geiser et al., 2006; Morin, Meyer, Creusier, & Biétry, 2015; Swartz, 2016).

To conduct these analyses, three nested multi-group models were compared—unconstrained, semi-constrained, and fully constrained. In the unconstrained model, the probabilities of class membership and the within-class conditional probabilities for the indicators can vary across cultural groups. The semi-constrained model fixes the conditional probabilities to be equal across groups (that is, it assumes that groups have the same latent class structures). To test whether the characteristics of latent classes are similar across groups, the unconstrained model was compared to the semi-constrained model. If the log likelihood difference test is significant and fit indexes are better for the unconstrained model, the less restrictive model (unconstrained) is said to have a better model fit when compared to the more restricted model (semi-constrained); if the test is not significant, we cannot reject the hypothesis of equal parameters, and we should assume that the parameters are invariant. Thus, a better model fit for the unconstrained model would indicate that latent classes are not equivalent across groups, and that it may be more appropriate to test for separate latent class models for each cultural group.

In the fully constrained model, the probabilities of latent class membership are constrained to be equal across groups. It essentially forces class classification to have the same size across groups. A comparison between this model and the semi-constrained model indicates whether groups differ in the extent to which they fall into each of the gratitude typologies (Research Question 2). This means that, if the semi-constrained model fits the data better, groups differ in the extent to which they express each typology of gratitude (that is, constraining class

membership to be equal worsens the model). In all these models, gender and age were entered as covariates. Parental educational level was intended to be used as a control variable as well; however, given the large number of missing data on this variable and lack of variability in groups such as Hispanics, I decided not to include this variable as a covariate. Brazilian children in the U. S. was used as the reference group in both levels of comparison.

To compare the model fit of the nested models, I used three statistical indexes: Akaike (AIC), Bayesian (BIC), and the sample-size adjusted BIC (ABIC). A smaller value in these indexes indicates better model fit. I also used the likelihood difference test, which is calculated by computing the differences between  $-2\log$  likelihood (which has a chi-square distribution) of the more and less restricted model. The difference in the estimated parameters is used to compute degree of freedom.

To test for the association between children's values and gratitude (Research Question 3), I added the three types of wish as predictors to the model. In this set of analyses, the gratitude typologies (latent classes) were the categorical dependent variable (with three levels) and children's values were the predictors (controlling for age and gender). Interaction terms between cultural groups and children's wishes were added one at a time to test for the moderating function of cultural groups. Significant interactions were further explored in separate analyses. That is, the same models were run for each cultural group separately; this was also done.

Finally, to test for parental values' association with children's gratitude (Research Question 4), I entered parents' values as predictors of gratitude in the multinomial regression. This was done for those groups in which measurement equivalence was found. For the groups in which no measurement equivalence was found, parental values were entered separately in different regressions.

## **CHAPTER V**

### **RESULTS**

#### **Preliminary Results**

##### **Latent Class Analysis: Typologies of Gratitude Expression**

The first step in conducting a LCA is to decide how many latent classes best represent the data. To do that, I tested one- through five-class models; class enumeration was done considering the whole sample for each of the comparison levels (Geiser et al., 2006). The model selected was tested separately for each group to assure that the number of classes was appropriate across groups.

Although there is some controversy related to whether covariates should be added in the model when deciding on the number of classes, some authors have argued that the best approach is to add covariates after the number of classes has been estimated (Nylund-Gibson & Masyn, 2016; Vermunt, 2010). Thus, in this first step, the number of latent classes was determined based exclusively on the patterns of responses for the three gratitude types (verbal, concrete, and connective).

According to Nylund and colleagues (2007), usually a combination of criteria is used to guide the decision about class numbers. In the present study, the following criteria were used: AIC, BIC, ABIC, Lo-Mendell-Rubin test (LMR), and the bootstrap likelihood ratio test (BLRT). These last two tests (LMR and BLRT) are used to compare the improvement in fit between the model being tested and a model with one less class; that is, when testing for a model with four classes, these tests will indicate whether a three-class model is better than the four-class model. The *p* values provided by these tests are used to decide whether there is a statistically significant

improvement in fit when one more class is included. If  $p$  values are not significant, adding one more class does not improve the model, suggesting that the model with fewer classes fit the data better than the model with more classes (Nylund et al., 2007; Swartz, 2016).

The fit indexes for models with one to five classes are presented in Table 5. Indicators suggested that a model with three classes fit the data better for both comparison levels (across ethnic groups in the U. S. and across societies). Thus, the three-latent class model was retained for both sets of comparisons. Results of indicators probabilities in each class are displayed in Table 6. For the within-U.S. comparison, class 1 represented a high probability to express verbal gratitude (.948), and a small propensity to express connective gratitude (.131) as well. Class 2 was characterized by a high likelihood to express connective gratitude (.916). Lastly, class 3 represented a high probability to express concrete gratitude (.927), with a small probability to express verbal gratitude (.136). Overall, 29.55% of children were classified as class 1 (verbal gratitude), 39.19% as class 2 (connective gratitude), and 31.26% as class 3 (concrete gratitude).

Regarding the societal comparison, the results indicated that class 1 was characterized by a high likelihood of expressing verbal gratitude (.998), and a small probability of expressing connective gratitude (.172). Class 2 was characterized by a higher propensity to express connective gratitude (.791). The last class represented a high likelihood to express concrete gratitude (.989), and low likelihood to express verbal gratitude (.143). In general, 32.57% of the sample was categorized as highly verbal, 39.09% as highly connective, and 28.34% as highly concrete.

Table 5. Fit Indexes for Models with One to Five Classes Across Ethnic Groups and Societies

Number of Latent Classes	Ethnic Groups						
	Log Likelihood	AIC	BIC	ABIC	VLMRT ( <i>p</i> )	BLRT ( <i>p</i> )	Entropy
1	-908.69	1823.38	1835.82	1826.30	—	—	—
2	-818.25	1650.51	1679.53	1657.32	.000	.000	1.00
<b>3</b>	<b>-753.99</b>	<b>1529.99</b>	<b>1575.60</b>	<b>1540.68</b>	<b>.000</b>	<b>.000</b>	<b>.833</b>
4	-753.99	1537.99	1600.18	1552.57	.343	1.00	.706
5	-753.99	1545.99	1624.77	1564.46	.713	1.00	.696
	Societies						
	Log Likelihood	AIC	BIC	ABIC	VLMRT ( <i>p</i> )	BLRT ( <i>p</i> )	Entropy
1	-1194.67	2395.33	2408.59	2399.07	—	—	—
2	-1095.71	2205.42	2236.36	2214.14	.000	.000	.949
<b>3</b>	<b>-1034.94</b>	<b>2091.87</b>	<b>2140.49</b>	<b>2105.57</b>	<b>.000</b>	<b>.000</b>	<b>.856</b>
4	-1034.94	2099.87	2166.17	2118.55	.000	1.00	.687
5	-1034.94	2107.87	2191.85	2131.53	.500	1.00	.591

*Note.* AIC = Akaike, BIC = Bayesian, ABIC = sample-size adjusted BIC, LMR = Lo-Mendell-Rubin test, and BLRT = bootstrap likelihood ratio test.

Table 6. Conditional Probability of Classes' Indicators Across Ethnic Groups and Societies

		Probability in each interaction mode		
		<b>Ethnic Groups</b>		
		Class1	Class2	Class3
Membership in VB	No	.052	.932	.864
	Yes	<b>.948</b>	.068	.136
Membership in CC	No	.977	.962	.073
	Yes	.023	.038	<b>.927</b>
Membership in CV	No	.869	.084	.990
	Yes	.131	<b>.916</b>	.010
		138 (29.55%)	183 (39.19%)	146 (31.26%)
		<b>Societies</b>		
		Class1	Class2	Class3
Membership in VB	No	.002	.915	.857
	Yes	<b>.998</b>	.085	.143
Membership in CC	No	.930	.958	.011
	Yes	.070	.042	<b>.989</b>
Membership in CV	No	.828	.209	1.000
	Yes	.172	<b>.791</b>	0
		200 (32.57%)	240 (39.09%)	174 (28.34%)

*Note.* VB = Verbal gratitude, CC = Concrete gratitude, and CV = Connective gratitude.

## **Hypotheses 1 Testing: Differences in Parental Values**

### **Analysis of the RASH Across Ethnic Groups**

**Confirmatory Factor Analysis.** To validate the instrument measuring parental values, I first estimated a four-factor model using Confirmatory Factor Analysis (CFA). Although Kağıtçıbaşı proposed two different dimension reflecting cultural values, I chose to test for four factors given that the measure used here is composed of four sub-scales; thus, I tested for a model with four latent constructs representing values for autonomy, relatedness, heteronomy, and separateness. Four fit indices were used to evaluate the proposed model to the observed data: Chi-square value, the root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR). For this first comparison, data from a total of 522 parents with 7- to 14-year-old children were used: 187 European American, 126 African American, 107 Brazilian immigrants, and 102 Hispanic parents.

Initially, using the whole sample for the ethnic comparison, a list of potential items to be deleted was created. The following criteria for item deletion were used: (a) items with factor loadings lower than .32; (b) modification index indicating that items were loading on a dimension in which they were not supposed to belong (suggesting conceptual overlap); and (c) items highly correlated with items in other dimensions. Items were deleted one at a time to examine the relative size of these indicators and changes in model fit after being deleted. In this initial step a total of 21 items were retained. This model presented a good fit: CFI = .911 ( $> .90$ ), RMSEA = .056 ( $< .08$ ), and SRMR = .053 ( $< .10$ ). Although the Chi-Square value was significant ( $\chi^2 = 485.92$ ,  $df = 183$ ,  $p = .000$ ), this can be related to the large sample size.

To ensure a good model fit across groups, this same model was tested for each ethnic group in separate analyses; the model presented an acceptable fit only for the Brazilian immigrant group and marginally for European Americans. Items were inspected for each ethnic group and



deleted one at a time to check for model fit improvement using the same criteria as mentioned above.

A total of nine more items were deleted. At least 3 items were retained in each sub-scale. This led to a 12-item scale representing the four value dimensions. This 12-item scale had an overall good model fit ( $\chi^2 = 84.81$ ,  $df = 48$ ,  $p = .000$ ; CFI = .975; RMSEA = .038; and SRMR = .034), and fitted the data well across ethnic groups: African Americans ( $\chi^2 = 70.72$ ,  $df = 48$ ,  $p = .018$ ; CFI = .920; RMSEA = .061; and SRMR = .069), European Americans ( $\chi^2 = 88.26$ ,  $df = 48$ ,  $p = .000$ ; CFI = .939; RMSEA = .067; and SRMR = .061), Hispanics ( $\chi^2 = 70.12$ ,  $df = 48$ ,  $p = .020$ ; CFI = .929; RMSEA = .067; and SRMR = .065), and Brazilian immigrants ( $\chi^2 = 53.73$ ,  $df = 48$ ,  $p = .264$ ; CFI = .965; RMSEA = .033; and SRMR = .066).

**Measurement Equivalence.** Using the 12-item four-factor measure from above, I investigated measurement equivalence across the different ethnic groups. For that, increasingly restrictive nested models were compared with the previous less restricted model. In the first step, equivalence of the measure parameters was tested (configural, metric, and scalar invariance). Only if parameters equivalence is found across groups, can we reliably compare groups and further explore sample heterogeneity (invariance in variance, covariance, and mean factors).

Configural invariance is tested by assessing whether items load significantly onto the same latent construct of interest; in this study, this meant testing whether the four latent constructs representing parental values included the same items as indicators. Metric invariance tests whether the factor loadings of the indicators are similar across groups, and scalar invariance tests whether the intercepts are invariant across groups. Metric invariance can only be tested when the measure is configurally invariant, and scalar invariance can only be tested if we find metric invariance (Adamsons & Buehler, 2007).

Contrary to what had been expected, I found no measurement invariance across the four ethnic groups, including no configural invariance (Metric vs. Configural:  $\chi^2$  diff = 44.26,  $df = 24$ ,  $p = .007$ ; Scalar vs. Metric:  $\chi^2$  diff = 74.77,  $df = 24$ ,  $p = .000$ ). To understand where the structural differences across groups lay, I conducted an Exploratory Factor Analysis (EFA) for each ethnic group separately. For these exploratory analyses, I used a model that best fit a specific ethnic group (not necessarily the 12-item model) to better understand the particularities of each group.

**Exploratory Factor Analysis.** For African Americans, a model with 16 items was tested. The EFA indicated that these 16 items could be explained by four factors; however, items supposed to correspond to different dimensions were loading together. Specifically, items from the autonomous dimension loaded with items from the separateness dimension; because of that, I deleted the three items in the autonomous dimension and tested for a three-factor model. This model showed a clear factor representing separateness, another factor with mostly heteronomous items and relatedness items loading in more than one dimension. I then deleted the relatedness sub-scale and tested for a two-factor model (composed of four heteronomous and six separateness items).

This two-factor model indicated clearly distinct factors representing each of those dimensions. A CFA of the two-factor model indicated good fit ( $\chi^2 = 42.43$ ,  $df = 34$ ,  $p = .152$ ; CFI = .978; RMSEA = .044, SRMR = .051), with all factor loadings above .51. The means for the heteronomous and separateness sub-scales were 5.52 and 3.77, respectively. Separateness was positively correlated with heteronomy ( $r = .55$ ,  $p = .000$ ). The overall reliability of the scale was .86, and sub-scale reliabilities were .86 for separateness and .75 for heteronomy.

The same process was done for the Hispanic group with a 19-item measure. Similarly to African Americans, the four-factor model for the Hispanic group showed several items loading on

dimensions on which they were not supposed to load; for instance, items representing autonomy loaded across the four dimensions. I first deleted the autonomous sub-scale and tested for a three-factor model. This model showed that relatedness items were loading mostly in a single dimension, whereas the other two dimensions were composed of a mix of heteronomy and separateness items.

To retain sub-scales representing each dimension proposed by Kağıtçıbaşı (2007), I deleted the separateness sub-scale and tested a two-factor model (seven relatedness and three heteronomy items) for the Hispanic group. This model showed two visibly distinct dimensions. A CFA of the two-factors model indicated good fit ( $\chi^2 = 42.84$ ,  $df = 34$ ,  $p = .142$ ; CFI = .978; RMSEA = .052, SRMR = .044), with all factor loadings above .61. Relatedness was positively correlated with heteronomy ( $r = .57$ ,  $p = .000$ ). The reliability of the scale was .85; the relatedness sub-scale reliability was .87 and the reliability for heteronomy was .81. The means were 7.28 and 5.82 for relatedness and heteronomy, respectively.

The same process was done once again for both European Americans (a 26-item measure) and Brazilian immigrants (a 21-item measure). For these two groups, the four-factor model fit the data well, with all items loading on the factor they were supposed to, but some also loading on other factors (mostly with lower factor loadings in the second factor). A total of five items that cross-loaded or did not fit the model were deleted from both the North American and Brazilian immigrant samples; this allowed to distinguish four clear factors representing Kağıtçıbaşı's (2007) cultural values. This model is described below while testing for measurement equivalence.

#### **Measurement Equivalence Across Brazilian Immigrants and European Americans.**

Measurement equivalence tests were conducted using a total of 12 items that were the same across groups. A CFA indicated good model fit for both European Americans ( $\chi^2 = 88.40$ ,  $df =$

48,  $p = .000$ ; CFI = .928; RMSEA = .067, SRMR = .067) and Brazilian immigrants ( $\chi^2 = 44.06$ ,  $df = 48$ ,  $p = .635$ ; CFI = 1.00; RMSEA = .000, SRMR = .058).

The results of the nested model comparison are presented in Table 7. Configural and metric models presented acceptable model fit, although the chi-squares were significant (Configural:  $\chi^2 = 132.46$ ,  $df = 96$ ,  $p = .008$ ; CFI = .949; RMSEA = .051; and SRMR = .064; Metric:  $\chi^2 = 146.91$ ,  $df = 104$ ,  $p = .004$ ; CFI = .940; RMSEA = .053; and SRMR = .076). The comparison between the metric (M2) and configural model (M1) was not significant ( $\chi^2$  diff = 14.45,  $df = 8$ ,  $p = .071$ ), indicating that the factor loadings can be considered invariant across groups.

Table 7. Tests of Measurement Invariance of the 12-Item RASH Scale Across Brazilian Immigrants and European Americans

Measurement invariance	Model fit						Nested model comparisons			
	$\chi^2$	<i>df</i>	<i>p</i>	CFI	RMSEA	SRMR	Model comparisons	$\chi^2$ diff	<i>df</i>	<i>ps</i>
M1: Configural invariance	132.46	96	.008	.949	.051	.064				
M2: Metric invariance	146.91	104	.004	.940	.053	.076	M2 vs. M1	14.45	8	.071
M3a: Scalar invariance	184.27	112	.000	.899	.055	.088	M3a vs. M2	37.36	8	.000
M3b: Partial intercepts invariance	156.69	109	.002	.933	.055	.077	M3b vs. M2	9.78	5	.082
<b>Population heterogeneity</b>										
M3b: Baseline	156.69	109	.002	.933	.055	.077				
M4: Equal factor variance	164.22	113	.001	.928	.056	.088	M4 vs. M3b	7.53	4	>.100
M5: Equal factor covariance	169.50	119	.002	.929	.054	.093	M5 vs. M4	5.28	6	>.100
M6: Equal factor mean	190.78	123	.000	.905	.061	.116	M6 vs. M5	21.28	4	<.000

**Note.** The baseline model for evaluation of population heterogeneity is a model in which all measurement parameters previously tested are constrained to equality, except for intercepts of three indicators. *N* = 294 (187 North Americans and 107 Brazilians in the U. S.).  $\chi^2$ diff = nested Chi-Square difference, CFI = comparative fit index, RMSEA = root mean square error of approximation, and SRMR = standardized root mean square residual.

Nonetheless, the comparison between the scalar (M3a) and the metric models (M2) was significant, suggesting that the intercepts are not invariant across groups ( $\chi^2$  diff = 37.36,  $df = 8$ ,  $p = .000$ ). To test for partial intercept invariance, I freed three intercepts to vary across groups, as suggested in the modification index. Freeing these intercepts significantly improved the model. This partial invariant model (M3b) was not significantly worse than the metric model (M2) ( $\chi^2$  diff = 9.78,  $df = 5$ ,  $p = .082$ ).

Using the partial intercept invariant model (M3b) as the baseline, I tested for population heterogeneity—equal factor variance (equivalence of the latent construct variance across groups), equal factor covariance (equivalence of factor covariances across groups), and equal factor means (equivalence of the latent construct means across groups). The findings indicated that constraining factor variances (M4 vs. M3b) to be equal across groups did not worsen the model significantly ( $\chi^2$  diff = 7.53,  $df = 4$ ,  $p > .100$ ).

Further analysis indicated that factor covariances were invariant ( $\chi^2$  diff = 5.28,  $df = 6$ ,  $p > .100$ ), but factor means were not invariant across groups ( $\chi^2$  diff = 21.28,  $df = 4$ ,  $p < .000$ ). Contrary to what was hypothesized, these groups did not differ significantly in relatedness and separateness. Also in contrast to what I had hypothesized, these groups did differ significantly in the values of autonomy and heteronomy ( $p = .001$ ), with Brazilian immigrants scoring higher on both.

The relations between values were in the same direction across groups (although it differed in significance); except for the non-significant negative association between relatedness and separateness, all other associations were positive. For both samples, autonomy was positively related to heteronomy (European Americans:  $r = .59$ ,  $p = .000$ ; Brazilian immigrants:  $r = .39$ ,  $p = .017$ ), and heteronomy was positively associated with relatedness (European Americans:  $r = .25$ ,  $p = .02$ ; Brazilian immigrants:  $r = .35$ ,  $p = .03$ ) and separateness (European

Americans:  $r = .46, p = .000$ ; Brazilian immigrants:  $r = .38, p = .013$ ). Autonomy was positively associated with relatedness ( $r = .40, p = .005$ ), but only for the Brazilian immigrant sample, and autonomy was positively related to separateness ( $r = .32, p = .000$ ), but only for the European American sample.

Descriptive statistics and factor loadings for the 12-item measure across groups are shown in Tables 8 and 9. The overall reliability of the scale was .73 and the reliabilities for the relatedness, autonomy, heteronomy, and separated sub-scales were, respectively, .61, .65, .69, and .77. Given that reliability is greatly influenced by the length of the questionnaire and each sub-scale had only 3 items, it is reasonable to consider acceptable reliabilities lower than .70.

*Table 8. Indicators' Descriptive Statistics for the Four-Factor RASH Scale for Brazilian Immigrants and European Americans*

	European Americans ( $n = 187$ )				Brazilian Immigrants ( $n = 107$ )			
	Min	Max	Mean	SD	Min	Max	Mean	SD
G_REL	4	9	8.36	.943	1	9	8.06	1.39
J_REL	2	9	7.29	1.68	1	9	7.98	1.46
BB_REL	3	9	7.66	1.34	1	9	7.79	1.63
C_AUT	1	9	5.44	2.27	1	9	5.65	2.45
L_AUT	1	9	5.83	2.33	1	9	6.74	2.10
U_AUT	1	9	6.41	2.02	1	9	7.38	1.81
H_HET	1	9	4.08	1.95	1	9	4.96	1.96
W_HET	1	9	3.75	1.91	1	9	4.30	2.01
CC_HET	1	9	5.42	2.04	1	9	5.99	1.99
F_SEP	1	9	2.37	1.68	1	9	2.61	1.99
N_SEP	1	9	2.53	1.75	1	9	2.35	1.81
X_SEP	1	9	2.47	1.80	1	9	2.58	1.91
<b>Mean</b>								
Relatedness			<b>7.77</b>				<b>7.94</b>	
Autonomy			<b>5.89<sup>a</sup></b>				<b>6.59<sup>a</sup></b>	
Heteronomy			<b>4.42<sup>b</sup></b>				<b>5.08<sup>b</sup></b>	
Separateness			<b>2.46</b>				<b>2.51</b>	

*Note.* SD = Standard deviation. Means indicated by letters a and b differed significantly across groups.

Table 9. Factor Loading for the 12-Item RASH Scale by Ethnic Group

	European Americans								Brazilian Immigrants							
	REL		AUT		HET		SEP		REL		AUT		HET		SEP	
	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.
<b>G_REL</b>	–	.68							–	.56						
<b>J_REL</b>	1.69 (.33)	.64							.70 (.24)	.37						
<b>BB_REL</b>	1.35 (.24)	.64							1.67 (.56)	.79						
<b>C_AUT</b>			–	.72							–	.43				
<b>L_AUT</b>			1.10 (.17)	.77							1.42 (.59)	.71				
<b>U_AUT</b>			.63 (.12)	.50							.76 (.29)	.44				
<b>H_HET</b>					–	.73							–	.40		
<b>W_HET</b>					.98 (.14)	.73							1.32 (.51)	.51		
<b>CC_HET</b>					.90 (.13)	.63							1.62 (.71)	.63		
<b>F_SEP</b>							–	.61							–	.68
<b>N_SEP</b>							1.31 (.18)	.76							.95 (.19)	.71
<b>X_SEP</b>							1.55 (.21)	.87							1.04 (.19)	.74

**Note.** REL = Relatedness, AUT = Autonomy, HET = Heteronomy, SEP = Separateness, Unst. = Unstandardized, Std. = Standardized, and SE = Standard Error.



## **Analysis of the RASH Across Societal Groups**

**Confirmatory Factor Analysis.** The analysis of the RASH across ethnic groups suggested potential differences in the ways parental values are conceptualized and could not be considered as equivalent across ethnic groups (except for partial invariance found between European American and Brazilian immigrant parents). Because of that, for the societal comparison, I included only European Americans in the North American group. Therefore, I expanded the previous comparison to include Brazilian parents living in their home country. Data from a total of 486 parents were used: 192 Brazilian, 187 European American, and 107 Brazilian immigrant parents.

The same procedure described above was done for this analysis, initially with the whole sample, deleting items with poor fit one at a time; a total of 18 items were retained. This model presented an acceptable fit: CFI = .900 ( $> .90$ ), RMSEA = .057 ( $< .08$ ), and SRMR = .054 ( $< .10$ ). The Chi-Square value was significant (333.90,  $df = 129$ ,  $p = .000$ ), which can be related to the large sample size. This same model was tested for each societal group in separate analyses. In this process, a total of six more items were deleted. At least 3 items were retained in each subscale. This led to a 12-item scale representing the four value dimensions.

This 12-item scale had an overall good model fit ( $\chi^2 = 86.35$ ,  $df = 48$ ,  $p = .000$ ; CFI = .962; RMSEA = .041; and SRMR = .038), and fitted the data well across groups: Brazilians ( $\chi^2 = 74.71$ ,  $df = 48$ ,  $p = .008$ ; CFI = .930; RMSEA = .054; and SRMR = .057), European Americans ( $\chi^2 = 56.28$ ,  $df = 48$ ,  $p = .193$ ; CFI = .986; RMSEA = .030; and SRMR = .041), and Brazilian immigrants ( $\chi^2 = 45.86$ ,  $df = 48$ ,  $p = .561$ ; CFI = 1.00; RMSEA = .000; and SRMR = .056).

**Measurement Equivalence.** I investigated measurement equivalence across the different societal groups, using the same procedures described above. Again, I found no measurement invariance, including no configural invariance (Metric vs. Configural:  $\chi^2$  diff =

33.23,  $df = 16$ ,  $p = .007$ ; Scalar vs. Metric:  $\chi^2$  diff = 127.70,  $df = 16$ ,  $p = .000$ ). To understand the structural differences across groups, I conducted an EFA for the Brazilian sample, using the model that best fitted this group.

**Exploratory Factor Analysis.** A model with 13 items was tested for Brazilian parents. The four-factor model did not converge. In the three-factor model, the first factor was composed of relatedness and separateness items (negatively correlated), suggesting one dimension for these sub-scales (as proposed by Kağıtçıbaşı, 2007). Because some of the separateness items were cross-loading, this dimension was deleted and a three-factor model was tested. This model showed very good fit and three distinct factors. A CFA analysis of this model showed excellent fit:  $\chi^2 = 24.34$ ,  $df = 24$ ,  $p = .442$ ; CFI = .999; RMSEA = .009; and SRMR = .042; all factor loadings were above .41. Heteronomy was positively associated with autonomy ( $r = .33$ ,  $p = .001$ ).

**Three-Factor Model Measurement Equivalence.** I tested whether this three factor-model would be invariant for Brazilians, Brazilian immigrants, and European Americans. The model tested here was different from the one tested for equivalence across Brazilian immigrants and European Americans only, to accommodate Brazilian parents. This model presented good fit across groups: Brazilian immigrants ( $\chi^2 = 21.13$ ,  $df = 24$ ,  $p = .631$ ; CFI = 1.00; RMSEA = .000; SRMR = .052), European Americans ( $\chi^2 = 19.76$ ,  $df = 24$ ,  $p = .710$ ; CFI = 1.00; RMSEA = .000; SRMR = .036), and Brazilians ( $\chi^2 = 32.70$ ,  $df = 24$ ,  $p = .111$ ; CFI = .965; RMSEA = .043; SRMR = .049).

The results of the nested data comparison are presented in Table 10. Both configural and metric models presented very good fit (Configural:  $\chi^2 = 73.60$ ,  $df = 72$ ,  $p = .426$ ; CFI = .998; RMSEA = .012; and SRMR = .045; Metric:  $\chi^2 = 94.90$ ,  $df = 84$ ,  $p = .196$ ; CFI = .986; RMSEA = .028; and SRMR = .060). The comparison between the metric (M2a) and configural model (M1)

was barely significant ( $\chi^2$  diff = 21.3,  $df$  = 12,  $p$  = .0462); thus, I decided to free one factor loading and test for partial metric equivalence. Freely estimating the factor loading for one item in the Brazilian immigrant group improved the model fit and indicated partial equivalence—the comparison between the partial invariant metric model (M2b) with the configural model (M1) was not significant ( $\chi^2$  diff = 15.80,  $df$  = 11,  $p$  = .148), indicating that the measure has partial metric equivalence.

However, the comparison between the scalar (M3a) and the partial invariant metric model (M2b) was significant, suggesting that the intercepts are not invariant across groups ( $\chi^2$  diff = 117.25,  $df$  = 12,  $p$  = .000). To test for partial intercept invariance, I freed five intercepts to vary across groups as suggested in the modification index. This significantly improved the model, and this partial invariant model (M3b) was not significantly worse than the partial invariant metric model (M2b) ( $\chi^2$  diff = 4.36,  $df$  = 7,  $p$  > .100).

The tests for population heterogeneity indicated that constraining factor variances (M4 vs. M3b) to be equal across groups did not worsen the model significantly ( $\chi^2$  diff = 3.97,  $df$  = 6,  $p$  > .100); also, constraining the covariance (M5 vs. M4) to be equal across groups did not worsen model fit ( $\chi^2$  diff = 6.37,  $df$  = 6,  $p$  > .100). However, when means of latent variables were fixed to zero, the model fit (M5 vs. M6) was significantly lower ( $\chi^2$  diff = 63.95,  $df$  = 6,  $p$  < .05), indicating that these groups differ in their mean levels of latent factors.

Again, for this scale, groups did not differ significantly in relatedness. Also, contrary to what I had expected, greater differences were found for the autonomy and heteronomy sub-scales, with European Americans scoring significantly lower ( $p$  = .000) in autonomy than both Brazilians and Brazilian immigrants. For heteronomy, Brazilians in their home country did not differ significantly from European Americans, whereas Brazilians in the U. S. differed significantly from European Americans in this sub-scale ( $p$  = .000).

All the correlations among values were in the same direction, except for the non-significant association between relatedness and autonomy, which was negative only for the Brazilian sample. For all groups, heteronomy was positively related to autonomy (European Americans:  $r = .49, p = .000$ ; Brazilian immigrants:  $r = .36, p = .010$ ; Brazilians:  $r = .33, p = .001$ ). Relatedness was significantly associated with heteronomy ( $r = .24, p = .008$ ), although only for European Americans. Descriptive statistics and factor loadings for the 9-item measure across groups are shown in Tables 11 and 12. The overall reliability of the scale was .61 and the reliabilities for relatedness, autonomy, and heteronomy were, respectively, .68, .61, .69.

Table 10. Tests of Measurement Invariance of the Three-Factor RASH Scale Across Societal Groups

Measurement invariance	Model fit						Nested model comparisons			
	$\chi^2$	<i>df</i>	<i>p</i>	CFI	RMSEA	SRMR	Model comparisons	$\chi^2$ diff	<i>df</i>	<i>ps</i>
M1: Configural invariance	73.60	72	.426	.998	.012	.045				
M2a: Metric invariance	94.90	84	.196	.986	.028	.060	M2a vs. M1	21.3	12	.0462
Mb: Partial metric invariance	89.39	83	.296	.992	.022	.058	M2b vs. M1	15.80	11	.149
M3a: Scalar invariance	206.64	95	.000	.855	.085	.084	M3a vs. M2b	117.25	12	.000
M3b: Partial intercepts invariance	93.75	90	.373	.995	.016	.060	M3b vs. M2b	4.35	7	.738
<b>Population heterogeneity</b>										
M3b: Baseline	93.75	90	.373	.995	.016	.060				
M4: Equal factor variance	97.72	96	.432	.998	.011	.073	M4 vs. M3b	3.97	6	>.100
M5: Equal factor covariance	104.09	102	.424	.997	.011	.081	M5 vs. M4	6.37	6	>.100
M6: Equal factor mean	168.04	108	.000	.922	.059	.114	M6 vs. M5	63.95	6	<.05

**Note.** The baseline model for evaluation of population heterogeneity is a model in which all measurement parameters previously tested are constrained to equality, except for the factor loading of one indicator and the intercepts of five indicators.  $N = 486$  (187 European Americans, 107 Brazilians in the U. S., and 192 Brazilians).  $\chi^2$ diff = nested Chi-Square difference, CFI = comparative fit index, RMSEA = root mean square error of approximation, and SRMR = standardized root mean square residual.

Table 11. Indicators' Descriptive Statistics for the Three-Factor RASH Scale for Brazilians, Brazilian Immigrants, and European Americans

Items	Brazilians (n = 192)				European Americans (n = 187)				Brazilian Immigrants (n = 107)			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
G_REL	1	9	7.97	1.27	4	9	8.36	.943	1	9	8.06	1.39
K_REL	4	9	8.03	1.12	4	9	8.22	1.12	5	9	8.38	.861
V_REL	1	9	7.37	1.51	1	9	7.43	1.47	4	9	7.68	1.35
C_AUT	1	9	5.43	2.30	1	9	5.44	2.27	1	9	5.65	2.45
O_AUT	1	9	6.37	2.07	1	9	5.21	1.89	1	9	5.24	2.31
U_AUT	1	9	7.28	1.72	1	9	6.41	2.02	1	9	7.38	1.81
H_HET	1	9	4.47	1.99	1	9	4.08	1.95	1	9	4.96	1.96
I_HET	1	9	4.16	2.21	1	9	5.37	2.02	1	9	5.01	2.18
CC_HET	1	9	5.35	2.06	1	9	5.42	2.04	1	9	5.99	1.99
<b>Mean</b>												
Relatedness			<b>7.79</b>				<b>8.01</b>				<b>8.04</b>	
Autonomy			<b>6.36<sup>a</sup></b>				<b>5.69<sup>a, b</sup></b>				<b>6.09<sup>b</sup></b>	
Heteronomy			<b>4.66</b>				<b>4.96<sup>c</sup></b>				<b>5.32<sup>c</sup></b>	

*Note.* SD = Standard deviation. Means indicated by letters a, b, and c differed significantly across groups.

Table 12. Factor Loadings for the 9-item RASH by Societal Group

Item	Brazilians						European Americans						Brazilian Immigrants					
	REL		AUT		HET		REL		AUT		HET		REL		AUT		HET	
	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.	Unst. (SE)	Std.
<b>G_REL</b>	–	.69					–	.87					–	.71				
<b>K_REL</b>	.95 (.21)	.75					1.07 (.14)	.78					.65 (.15)	.74				
<b>V_REL</b>	.75 (.17)	.44					.93 (.15)	.52					.81 (.19)	.59				
<b>C_AUT</b>			–	.56					–	.66					–	.54		
<b>O_AUT</b>			1.29 (.31)	.80					.93 (.17)	.74					.95 (.37)	.54		
<b>U_AUT</b>			.58 (.13)	.43					.77 (.15)	.57					.58 (.28)	.42		
<b>H_HET</b>					–	.62					–	.73					–	.97
<b>I_HET</b>					1.22 (.30)	.84					1.03 (.14)	.78					.45 (.14)	.50
<b>CC_HET</b>					.62 (.13)	.41					.91 (.13)	.66					.46 (.15)	.49

**Note.** REL = Relatedness, AUT = Autonomy, HET = Heteronomy, SEP = Separateness, Unst. = Unstandardized, Std. = Standardized, and SE = Standard Error.

## **Hypotheses 2 Testing: Differences in Children's Expressions of Gratitude**

Using multi-group analysis, I investigated whether the three-class model of gratitude expression presented similar latent class structures and membership prevalence for both within-U.S. ethnic groups and societies. For that, the three nested multi-group models previously discussed were tested and compared—unconstrained, semi-constrained, and fully constrained. Age and gender were entered as control variables in all model comparisons. The AIC, BIC, ABIC, and log likelihood difference test for the three models across ethnic groups and societies are presented in Table 13.

### **Gratitude Expression Across Ethnic Groups**

The results of the comparison between the unrestricted model and the semi-restricted model indicated that the semi-constrained model presented a better fit; this is seen in the lower values of all fit indexes for the more restricted model (semi-constrained model: AIC = 2771.67, BIC = 2871.13, ABIC = 2794.96). Also, the log likelihood difference test was not significant ( $\Delta G^2 = 35.84$ ,  $df = 27$ ,  $p > .100$ ), suggesting that fixing the within-class probabilities to be equal across groups does not worsen the model significantly.

This indicates that measurement equivalence can be assumed across groups; we can conclude that children across ethnic groups express gratitude in similar ways. It is, therefore, appropriate to test whether children across ethnic groups express the typologies of gratitude to different extents or not.



Table 13. Multi-Group Latent Class Analysis Across Ethnic Groups and Societies

	Ethnic Groups							
	AIC	BIC	ABIC	Log Likelihood	$\Delta G^2$	Parameters/ <i>p</i> -value	Entropy	<i>n</i>
<b>1. Unconstrained</b>	2789.83	3001.18	2839.32	-1343.91	—	51	.988	466
<b>2. Semi-constrained</b>	2771.67	2871.13	2794.96	-1361.83	35.84	24, <i>p</i> > .100	9.73	466
<b>3. Fully constrained</b>	2769.60	2844.20	2787.07	-1366.80	9.94	18, <i>p</i> > .100	.972	466
	Societies							
	AIC	BIC	ABIC	Log Likelihood	$\Delta G^2$	Parameters/ <i>p</i> -value	Entropy	<i>n</i>
<b>1. Unconstrained</b>	3302.19	3474.45	3350.63	-1612.10	—	39	.928	612
<b>2a. Semi-constrained</b>	3298.44	3391.20	3324.53	-1628.22	32.24	21, <i>p</i> < .025	.921	612
<b>2b. Semi-constrained with partial invariance</b>	3281.69	3396.53	3313.98	-1614.85	5.5	26, <i>p</i> > .100	.933	612
<b>3. Fully constrained</b>	3283.00	3380.17	3310.32	-1619.50	9.30	22, <i>p</i> > .05	.930	612

*Note.* AIC = Akaike, BIC = Bayesian ABIC = sample-size adjusted BIC,  $\Delta G^2$  = -2 Log Likelihood difference.

The comparison between the semi- and fully constrained model indicated that equal class membership can be assumed across groups, as the fully constrained model did not present a significantly worse fit than the semi- constrained model. The fit indexes were lower for the fully constrained model ( $AIC = 2769.60$ ,  $BIC = 2844.20$ ,  $ABIC = 2787.07$ ), and the log likelihood difference test was not significant ( $\Delta G^2 = 9.94$ ,  $df = 6$ ,  $p > .100$ ). This suggests that Brazilian children in the U. S. did not differ significantly from children in the other ethnic groups in the extent to which they expressed the typologies of gratitude.

The latent class patterns and the probability of class membership across groups in the semi- and fully constrained model are showed in Table 14. The differences seen in the fully constrained model seem to be due to the covariates and not group differences. These results do not support the hypothesis that Brazilian children in the U. S. would be more likely to express connective gratitude and less likely to express concrete gratitude than would European American children. On the other hand, the hypothesis that Brazilian immigrant children would not differ in the expression of gratitude from other minority groups was supported.

Table 14. Latent Class Patterns and Prevalence of Responses for the Semi- and Fully Constrained Models Across Ethnic Groups

		Semi-constrained					Fully constrained		
		C1	C2	C3			C1	C2	C3
VB	NO	0	.845	.984	VB	NO	.127	.844	1
	YES	<b>1</b>	.155	.016		YES	<b>.873</b>	.156	0
CC	NO	.846	.961	.155	CC	NO	.834	.961	.097
	YES	.154	.039	<b>.845</b>		YES	.166	.039	<b>.903</b>
CV	NO	1	.041	1	CV	NO	1	0	1
	YES	0	<b>.959</b>	0		YES	0	<b>1</b>	0
		C1	C2	C3			C1	C2	C3
African Americans		.255	.390	.355			.320	.402	.278
European Americans		.235	.457	.308			.343	.436	.221
Hispanics		.304	.349	.347			.315	.338	.346
Brazilians in the U. S.		.330	.395	.275			.323	.351	.326

*Note.* C1 = Class 1, C2 = Class 2, C3 = Class 3, VB = Verbal gratitude, CC = Concrete gratitude, CV = Connective gratitude.

Although not significantly different, we can see some dissimilarity trends in the expression of gratitude across ethnic groups, when looking at the proportion of participants in each class in the semi-constrained model. For instance, we see that, in contrast to hypothesis 2b, European American children tended to be more likely to express connective gratitude (.457), than did children in other ethnic groups; however, this difference was not significant, and may be because European American children had more educated parents than all other groups. Somewhat aligned to what expected, Brazilian children in the U. S. tended to express less concrete gratitude (.275) than did children in other ethnic groups.

### Gratitude Expression Across Societies

Contrary to the results above, the comparison between the unconstrained and the semi-constrained model across societies indicated that the unconstrained model fitted the data better. Although the fit indexes were smaller for the semi-constrained model (AIC = 3298.44, BIC =

3391.20, ABIC = 3324.53), the log likelihood difference test was significant ( $\Delta G^2 = 32.24$ ,  $df = 18$ ,  $p < .025$ ). This suggests that measurement equivalence cannot be assumed across groups and that children across societies may express gratitude in different ways.

To explore differences in the gratitude indicators' conditional probabilities across the three groups, I tested for equality in parameters using the Wald parameter test. Each test was conducted pairwise comparing first North Americans with Brazilians, then this last group with Brazilians in the U. S., and lastly Brazilians with Brazilians in the U. S. This was done for each of the three classes, and for each of the three gratitude indicators (verbal, concrete, and connective); a total of 27 parameter comparisons were assessed. From that, 10 parameters were found to be different across societies, with one society differing from the others on five parameters. The parameters that differed significantly are italicized and indicated with letters in the semi-constrained model represented on Table 15.

Overall, groups differed mostly in the extent to which they expressed lower rates of gratitude types together with a predominant type of gratitude. The two exceptions were the extent to which North Americans expressed verbal gratitude in the highly verbal gratitude category and in the extent to which Brazilians expressed connective gratitude in the highly connective gratitude category. Also, Brazilians tended to express more verbal gratitude in the highly connective class.

After that, I tested a model in which all equal indicators' probabilities were fixed, but with the five indicators mentioned above free to vary. This improved the model significantly, as shown by the fit indexes (semi-constrained model with partial invariance: AIC = 3281.69, BIC = 3396.53, ABIC = 3312.98). Comparing the model with partial invariance to the one with all parameters fixed showed that the partial invariant model had a better fit ( $\Delta G^2 = 26.74$ ,  $df = 5$ ,  $p < .000$ ).

The semi-constrained model with partial measurement invariance was then compared with the unconstrained model. The results indicated that the semi-constrained model with partial measurement invariance fitted the data better than the unconstrained model, with the log likelihood difference test being non-significant ( $\Delta G^2 = 5.5$ ,  $df = 13$ ,  $p > .100$ ). Lastly, I compared the partial invariant semi-constrained model with a fully constrained model, with this last model showing a marginally better fit than did the semi-constrained model ( $\Delta G^2 = 9.30$ ,  $df = 4$ ,  $p > .050$ ). These results suggested that equal class membership may be assumed across groups. However, because only partial measurement invariance was found, it may be better not to assume that these groups express gratitude in similar ways and to examine each group in separate analyses. Table 15 shows class patterns and the probability of class membership across groups in the unconstrained and semi-constrained model with partial invariance.

Table 15. Latent Class Patterns and Prevalence of Responses for the Unconstrained and Semi-Constrained Models Across Societies

			Unconstrained			Semi-constrained with partial invariance		
			Class 1	Class2	Class 3	Class 1	Class 2	Class 3
North Americans	VB	NO	.250	.874	1	.249	.907	1
		YES	.750 <sup>a, b</sup>	.126	0	.751	.093	0
	CC	NO	.814	.952	.023	.825	.964	.035
		YES	.186	.048 <sup>c</sup>	.977	.175	.036	.965
	CV	NO	.919	0	1	.821	0	1
		YES	.081 <sup>c</sup>	1 <sup>a</sup>	0 <sup>a</sup>	.179	1	0
%			.361	.377	.262	.388	.345	.266
Brazilians	VB	NO	0	.739	1	0	.907	1
		YES	1 <sup>a</sup>	.261	0	1	.093	0
	CC	NO	.770	.988	.140	.825	.964	.035
		YES	.230	.012 <sup>d</sup>	.860	.175	.036	.965
	CV	NO	.909	.293	.956	.821	.324	.990
		YES	.091 <sup>d</sup>	.707 <sup>a, b</sup>	.035 <sup>a, b</sup>	.179	.676	.010
%			.335	.472	.193	.413	.422	.165
Brazilians in the United States	VB	NO	0	.907	.998	0	.907	1
		YES	1 <sup>b</sup>	.093	.002	1	.093	0
	CC	NO	.866	1	.033	.825	1	.035
		YES	.134	0 <sup>c, d</sup>	.967	.175	0	.965
	CV	NO	1	0	1	1	0	1
		YES	0 <sup>c, d</sup>	1 <sup>b</sup>	0 <sup>b</sup>	0	1	0
%			.336	.391	.273	.336	.391	.273

**Note.** Parameters that differed significantly are assigned letters (e.g., a, b, c, and d) and parameters that are free to vary are italicized. VB = Verbal gratitude, CC = Concrete gratitude, and CV = Connective gratitude.

Looking at the unconstrained model, we see that North American children were more likely to be high in connective gratitude in combination with low verbal gratitude (.377), followed by a high probability of expressing verbal gratitude in combination with low concrete gratitude (.361). Brazilian children in their home country were more likely to express somewhat high connective gratitude in combination with medium likelihood of expressing verbal gratitude (.472), followed by a high probability of expressing verbal gratitude and some likelihood of expressing concrete gratitude (.335); Brazilian children also seemed less likely to express mostly concrete gratitude (.193). For the Brazilians in the U. S., we see a high tendency to express connective gratitude by itself (39.1%), followed by high probability to express verbal gratitude in combination with low concrete gratitude (33.6%).

Although these groups cannot be directly compared, it seems that Brazilians were more likely to use a combination of ways to express gratitude than were the other groups, especially in comparison to the Brazilians in the U. S. Somewhat aligned to what I had expected, Brazilians in the U. S. were very likely to use only connective gratitude; however, this group seemed not to differ from the North American counterparts in relation to the expression of concrete gratitude, although Brazilians had a lower likelihood to express this type of gratitude. For further hypotheses testing, the predictors will be tested separately.

### **Hypotheses 3 Testing: Association between Children's Values and Gratitude**

#### **Children's Values as Predictors of Gratitude Across Ethnic Groups**

In this analysis, I regressed the gratitude latent class on the selected predictors, using the semi-constrained model, controlling for age and gender. I decided to use the semi-constrained model given that models are re-estimated when predictors are entered, impacting the probability of latent class membership. As both the latent class and the grouping variable had more than two categories, I used multinomial regression. Brazilians in the U. S. was the reference group, and

the latent variable representing a high likelihood to express concrete gratitude was the reference class. I then inverted the category of reference to high likelihood to express connective gratitude to investigate differences in the expression of connective versus verbal gratitude.

Only age was significantly associated with an increased probability of expressing connective gratitude ( $OR = 1.39, p = .000$ ) and verbal gratitude ( $OR = 1.30, p = .007$ ) rather than concrete gratitude. Contrary to what I had expected, none of the children's types of wishes were statistically significant for either latent class. Even if not significant, we see a trend in which the expression of connective gratitude is associated with a lower likelihood of expressing hedonistic wishes and a greater likelihood of expressing self- and social-oriented wishes, in comparison to children expressing concrete gratitude (as hypothesized).

In this semi-constrained model, Brazilian children were more likely to express verbal gratitude versus concrete gratitude than were European American children ( $OR = .344, p = .044$ ). This same difference was marginally non-significant for African Americans compared to Brazilians in the U. S. ( $OR = .481, p = .062$ ). This suggests that although ethnicity did not affect the probabilities of latent class assignment directly, the inclusion of predictors resulted in ethnicity affecting class membership. That is, it is possible that some predictors were associated with both ethnicity and expressing a certain type of gratitude. Children expressing connective and verbal gratitude did not differ significantly from each other. Table 16 shows the odds ratios of the multinomial regression.



Table 16. Odd Ratios for Multinomial Logistic Regression Model of Children's Values, Age, Gender, and Ethnic Groups Predicting the Probability of Gratitude-Group Membership in Latent Classes

Variables	Verbal vs. Concrete Gratitude		Connective vs. Concrete Gratitude		Verbal vs. Connective Gratitude	
	Odds ratio	95% CI	Odds ratio	95% CI	Odds ratio	95% CI
<b>Children's Values</b>						
<b>Hedonism</b>	1.28	[0.23, 7.24]	0.65	[0.14, 3.00]	1.97	[0.11, 35.44]
<b>Self-oriented wish</b>	2.07	[0.47, 9.03]	1.26	[0.33, 4.79]	1.64	[0.15, 17.96]
<b>Social-oriented wish</b>	2.24	[0.56, 8.90]	2.15	[0.68, 6.84]	1.04	[0.17, 6.38]
<b>Age</b>	1.30**	[1.11, 1.52]	1.39**	[1.20, 1.60]	0.94	[0.78, 1.13]
<b>Gender</b>	1.81	[0.98, 3.34]	1.34	[0.73, 2.45]	1.35	[0.54, 3.40]
<b>African Americans</b>	0.48 <sup>†</sup>	[0.25, 0.92]	0.55	[0.30, 1.03]	0.87	[9.48, 1.58]
<b>European Americans</b>	0.34*	[0.14, 0.82]	0.44	[0.17, 1.16]	0.79	[0.20, 3.09]
<b>Hispanics</b>	0.84	[0.41, 1.70]	0.77	[0.30, 1.93]	1.09	[0.38, 3.17]

*Note.* <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .001$ .  $N = 466$ . Gender: 0 = male; 1 = female. Ethnic groups: 1 = African American; 2 = European American; 3 = Hispanics; 5 = Brazilian in the U. S. (reference level).

Finally, in contrast to the hypotheses, moderation analyses indicated some differences in the association between children's values and gratitude across groups. Because of that, predictors were tested for each ethnic group in separate analyses. The results indicated that, for African American children, the odds of expressing verbal instead of concrete gratitude decreased for children expressing hedonistic ( $OR = .16, p = .047$ ) and self-oriented wishes ( $OR = .09, p = .02$ ). Unexpectedly, for this group the likelihood of expressing connective rather than concrete gratitude decreased for children expressing social-oriented wishes ( $OR = .05, p = .02$ ). However, few children (total of 10) expressed this type of wish and this result may not be reliable.

For the European American sample, although not expected, the odds of expressing verbal gratitude rather than concrete gratitude increased for children expressing both self- ( $OR = 35.69, p = .01$ ) and social-oriented wishes ( $OR = 48.36, p = .01$ ). Also, the chance of expressing verbal instead of connective gratitude increased for children expressing hedonistic ( $OR = 17.72, p = .04$ ) and self-oriented wishes ( $OR = 17.76, p = .05$ ).

For Brazilian children in the United States, the hypotheses were confirmed only at a trend level—the odds of expressing connective rather than concrete gratitude decreased for children expressing hedonistic wishes. Moreover, the likelihood of expressing verbal instead of connective gratitude tended to increase for children with hedonistic wishes. Because there were just a few children expressing social-oriented wishes in the Hispanic group (a total of 7 children) and just one also expressing verbal gratitude, the model using wishes as predictor was not identified. Thus, I deleted social-oriented wishes from the model. For this group, neither hedonism nor self-oriented wishes were associated with the expression of gratitude. These results are displayed in Table 17.

Table 17. Odd Ratios for Multinomial Logistic Regression Model of Children's Values, Age, and Gender by Ethnic Group Predicting the Probability of Gratitude-Group Membership in Latent Classes

	VB vs. CC		CV vs. CC		VB vs. CV	
	Odds ratio	95% CI	Odds ratio	95% CI	Odds ratio	95% CI
<b>Brazilians in the United States (n = 110)</b>						
Hedonism	1.69	[0.08, 34.81]	0.09 <sup>†</sup>	[0.01, 0.83]	19.22 <sup>†</sup>	[1.30, 284.47]
Self-oriented wish	1.58	[0.08, 31.94]	0.28	[0.04, 2.19]	5.61	[0.39, 79.87]
Social-oriented wish	0.41	[0.02, 9.13]	0.28	[0.04, 1.88]	1.46	[0.09, 24.94]
Age	1.40*	[1.10, 1.79]	1.44*	[1.16, 1.80]	0.97	[0.79, 1.91]
Gender	1.29	[0.52, 3.15]	0.53	[0.22, 1.30]	2.42 <sup>†</sup>	[1.06, 5.51]
<b>African Americans (n = 103)</b>						
Hedonism	0.16*	[0.03, 0.73]	0.33	[0.08, 1.33]	0.48	[0.12, 1.90]
Self-oriented wish	0.09*	[0.02, 0.50]	0.44	[0.10, 1.85]	0.21 <sup>†</sup>	[0.05, 1.00]
Social-oriented wish	0.12 <sup>†</sup>	[0.02, 0.73]	0.05*	[0.01, 0.41]	2.25	[0.25, 20.54]
Age	1.22	[0.92, 1.60]	1.11	[0.90, 1.38]	1.09	[0.85, 1.41]
Gender	2.87 <sup>†</sup>	[1.09, 7.55]	2.33 <sup>†</sup>	[1.05, 5.14]	1.23	[0.48, 3.17]
<b>European Americans (n = 147)</b>						
Hedonism	13.01 <sup>†</sup>	[1.21, 140.51]	0.73	[0.16, 3.43]	17.72*	[1.69, 186.07]
Self-oriented wish	35.69*	[3.25, 392.11]	2.01	[0.46, 8.71]	17.76*	[1.61, 195.71]
Social-oriented wish	48.36*	[4.68, 500.03]	9.01 <sup>†</sup>	[1.15, 70.85]	5.37	[0.83, 34.64]
Age	1.27 <sup>†</sup>	[1.00, 1.61]	1.35*	[1.11, 1.65]	0.94	[0.74, 1.20]
Gender	4.24	[0.86, 20.87]	1.59	[0.75, 3.36]	2.67	[0.53, 13.51]
<b>Hispanics (n = 106)</b>						
Hedonism	0.98	[0.17, 5.64]	0.50	[0.11, 2.31]	1.94	[0.40, 9.36]
Self-oriented wish	2.52	[0.38, 16.86]	0.97	[0.19, 4.93]	2.61	[0.51, 13.28]
Social-oriented wish	—	—	—	—	—	—
Age	1.74*	[1.28, 2.38]	1.50*	[1.10, 2.04]	1.16	[0.92, 1.47]
Gender	1.82	[0.76, 4.38]	1.23	[0.52, 2.92]	1.48	[0.62, 3.52]

Note. <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .001$ . Gender: 0 = male; 1 = female. VB = Verbal gratitude, CC = Concrete gratitude, and CV = Connective gratitude.

### Children's Values as Predictors of Gratitude in Brazil

In this step, I tested for children's values as predictors of gratitude separately for Brazilian children in their home country. The results indicated that the odds of expressing verbal or connective rather than concrete gratitude decreased for Brazilian children expressing hedonistic wishes. In addition, older children were more likely to express verbal and connective rather than concrete gratitude. Results are displayed in Table 18.

*Table 18. Odd Ratios for the Multinomial Logistic Regression Model of Children's Values, Age, and Gender Predicting the Probability of Gratitude-Group Membership in Latent Classes for Brazilians*

	<b>Brazilians</b>					
	<b>VC vs. CC</b>		<b>CV vs. CC</b>		<b>VB vs. CV</b>	
	Odds ratio	95% CI	Odds ratio	95% CI	Odds ratio	95% CI
<b>HED</b>	0.13*	[0.03, 0.51]	0.24*	[0.09, 0.66]	0.55	[0.20, 1.51]
<b>SELF</b>	0.47	[0.14, 1.50]	1.06	[0.43, 2.62]	0.44	[0.17, 1.11]
<b>SOCIAL</b>	1.13	[0.21, 5.98]	1.42	[0.34, 5.89]	0.80	[0.21, 3.05]
<b>Age</b>	1.49**	[1.22, 1.82]	1.29*	[1.08, 1.53]	1.16	[0.96, 1.40]
<b>Gender</b>	2.90 <sup>†</sup>	[1.13, 7.49]	1.21	[0.61, 2.39]	2.40 <sup>†</sup>	[1.12, 5.18]

*Note.* <sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .001$ .  $N = 229$ . Gender: 0 = male; 1 = female. VB = Verbal gratitude, CC = Concrete gratitude, CV = Connective gratitude, HED = Hedonism, SELF = Self-Oriented Wishes, and SOCIAL = Social-Oriented Wishes.

### Hypothesis 4 Testing: Association between Parental Values and Gratitude

#### Parental Values as Predictor of Gratitude Across Ethnic Groups

In this last step, I entered parental values as predictors of children's gratitude. This model was tested separately for African Americans and Hispanics, using the scale most appropriate for each group. Contrary to what I had hypothesized, parental values were not significantly associated with children's expressions of gratitude for African Americans. Although not expected, for Hispanics, an increase in heteronomous values was associated with greater likelihood of expressing verbal rather than concrete gratitude ( $OR = 2.46$ ,  $p = .033$ ).

For European Americans and Brazilians in the U. S., parental values were entered as predictors of gratitude in a multi-group multinomial regression. Because the model did not converge when all four values were entered at the same time, I first entered autonomy and relatedness, and then I tested a model with heteronomy and separateness as predictors. Parental values were not significantly associated with children's expressions of gratitude for those two groups, in contrast to what I had expected. Running the analysis separately for each group confirmed these results.

### **Parental Values as Predictor of Gratitude Across Societal Groups**

For these last analyses, I tested the association of three parental values (autonomy, relatedness, and heteronomy) with children's expressions of gratitude separately for Brazilians, Brazilians in the United States, and European Americans. Parental values were tested again for these two groups in the United States because the measure included somewhat different items. The results were similar to those above, in which none of the parental values were associated with the expression of gratitude for Brazilians in the U. S. and European Americans.

For Brazilians in their home country, similarly to Hispanics, an increase in heteronomous value was associated with greater likelihood of expressing verbal rather than concrete gratitude ( $OR = 1.55, p = .047$ ). Also, in this last model, girls were more likely than were boys to express verbal rather than concrete gratitude ( $OR = 3.59, p = .04$ ). The results for this group are presented in Table 19. Overall, these findings do not support the hypotheses that parental values of relatedness and autonomy would be associated with the expression of connective rather than concrete gratitude, and that heteronomy would be linked to the expression of concrete rather than connective gratitude.

Table 19. Odd Ratios for the Multinomial Logistic Regression Model of Children's Values, Age, Gender, and Parental Values Predicting the Probability of Gratitude-Group Membership in Latent Classes for Brazilians

Variables	Verbal vs. Concrete Gratitude		Connective vs. Concrete Gratitude		Verbal vs. Connective Gratitude	
	Odds ratio	95% CI	Odds ratio	95% CI	Odds ratio	95% CI
<b>Parental Values</b>						
<b>Relatedness</b>	0.61	[0.29, 1.30]	0.57	[0.30, 1.09]	1.07	[0.66, 1.74]
<b>Autonomy</b>	0.54 <sup>†</sup>	[0.31, 0.94]	0.58 <sup>†</sup>	[0.34, 0.97]	0.94	[0.61, 1.46]
<b>Heteronomy</b>	1.55 <sup>*</sup>	[1.08, 2.22]	1.19	[0.87, 1.64]	1.29 <sup>†</sup>	[1.02, 1.65]
<b>Age</b>	1.41 <sup>**</sup>	[1.14, 1.75]	1.25 <sup>*</sup>	[1.04, 1.51]	1.13	[0.94, 1.35]
<b>Gender</b>	3.59 <sup>*</sup>	[1.31, 9.79]	1.61	[0.77, 3.36]	2.21 <sup>†</sup>	[1.05, 4.65]
<b>Hedonism</b>	0.11 <sup>*</sup>	[0.03, 0.47]	0.23 <sup>*</sup>	[0.08, 0.62]	0.49	[0.15, 1.63]
<b>Self-Oriented Wishes</b>	0.54	[0.16, 1.87]	1.32	[0.49, 3.52]	0.41	[0.16, 1.06]
<b>Social-Oriented Wishes</b>	1.39	[0.22, 8.97]	1.78	[0.40, 7.93]	0.78	[0.18, 3.43]

*Note.* <sup>†</sup>  $p < .10$ , <sup>\*</sup>  $p < .05$ , <sup>\*\*</sup>  $p < .001$ .  $N = 229$ . Gender: 0 = male; 1 = female.

## **CHAPTER VI**

### **DISCUSSION**

The present study advances the discussion about the conceptualization and measure of gratitude, as it defines gratitude as a virtue, and not as an emotional state or disposition. This is important because several scholars have stressed that the way gratitude has been conceptualized in empirical studies is confounded with other concepts, such as appreciation (e.g., Fagley, 2016; Tudge, Freitas, & O'Brien, 2015). Gratitude conceptualized as a moral virtue considers the autonomous desire of reciprocation to a benefactor as key; in this sense, gratitude is strongly linked to interpersonal relations (appreciation for nature or things, for example, is considered a different phenomenon) (Gulliford et al., 2013; McConnell, 1993; Roberts, 2016; Tudge, Freitas, & O'Brien, 2015).

Beyond that, the present study contributes to the literature by including a cultural perspective of children's expressions of gratitude. To understand how cultural values may be related to gratitude, I used Kağıtçıbaşı's (2007) theory of orthogonal values as my theoretical foundation, in which four values in two dimensions are proposed (agency: autonomy–heteronomy; personal distance: relatedness–separateness). Firstly, I tested Kağıtçıbaşı's orthogonal dimension of cultural values and explored how parental values are different and similar across cultural groups. This first step was crucial to establish whether comparisons across groups were possible using these dimensions.

Interestingly, I found several differences in the parental values measure, in which a two-dimension model was supported for African Americans and Hispanics. However, for African Americans, separateness was a better indicator of personal distance, whereas for Hispanics,

relatedness was a better indicator of this dimension. Moreover, items in the autonomous subscale were found to be confounded with separateness or loaded in several factors for these groups. Thus, there seem to be some issues regarding the conceptualization of some of the values proposed by Kağıtçıbaşı (2007), especially autonomy—it is possible, that for some groups (like for African Americans), being autonomous means to be separated from others (as suggested by the individualism–collectivism notion of cultural variation).

Research should explore the meaning of the values to understand whether these groups conceptualize them in a different way or whether other items, perhaps the ones proposed by Kağıtçıbaşı (2007), would better capture these values. Focus groups with parents could also be conducted to explore these issues. In addition, it may be that the relation between these values has a different functionality across groups. For instance, Tamis-LeMonda and colleagues (2008) proposed a theoretical model suggesting that the relation between cultural values, such as individualism and collectivism, are not always conflicting (although they can be), but also may be additive or functionally dependent (at macro and micro levels). These authors suggested that parents may value combined cultural orientations in different ways across diverse situations and developmental periods; thus, different value orientations may coexist in different ways.

For both Brazilians in the United States and European Americans, Kağıtçıbaşı's (2007) position was generally not supported. Although the correlation between relatedness and separateness was negative, this was not significant; therefore, these values do not seem to be necessarily opposites and may not be considered isomorphic, but different concepts (at least for the measure used here). For Brazilians in their home country, however, items from these values loaded mostly on a single factor (with separateness items being inversely related). This suggests that perhaps, for this society, the interpersonal distance dimension functions as proposed by Kağıtçıbaşı.



Nonetheless, heteronomy was found not to be the opposite of autonomy across these groups; these values were in fact positively related, the opposite of what Kağıtçıbaşı has argued. Also, the associations between values varied somewhat for the different groups. Whereas autonomy was positively correlated with relatedness for the Brazilians in the United States, it was correlated with separateness for European Americans. This provides some support for Kağıtçıbaşı's (2007) idea that autonomy and relatedness in the immigrant context may strengthen each other and for the notion of cultural prototypes for the North American sample.

Contrary to what had been expected, Brazilians (both in their home country and in the United States) differed from European Americans in the extent to which they valued autonomy, with Brazilians scoring higher on this value. Although this should be further explored, this may be related to what Coon and Kemmelmeier (2001) and Suizzo (2007) found; namely, that some minority groups (African Americans and Hispanics) are more likely to value agency than are European Americans. In Suizzo's opinion, this may be linked to a greater need to promote agency and empowerment among these groups.

Brazilians in the United States also scored higher in heteronomy than both European Americans and Brazilians in their home country. It may be that demands in the immigrant context are different, with immigrant groups tending to value greater social conformity than non-immigrant groups. This is also aligned with findings suggesting that ethnic minority groups in the United States were more likely to value goals linked to conservatism (tradition) than did European American parents (Suizzo, 2007). Despite these differences, it is important to note that these groups scored higher in both relatedness and autonomy than they did on heteronomy and separateness, supporting Kağıtçıbaşı's (2007) notion of autonomous-related self.

Overall, the analyses conducted here did not support the hypotheses either that parents would not differ in the structure of values (measurement invariance), or that Brazilians would be

higher in relatedness and lower in separateness than would European Americans and Brazilians in their home country, but would not differ in autonomy and heteronomy. Nonetheless, there is a need to further explore both the way these cultural values are conceptualized and their functionality across cultural groups.

After exploring parental values across cultural groups, I analyzed differences and similarities in children's expressions of gratitude. In general, the findings indicated that children within the U. S. did not differ on gratitude-expression patterns. This suggests that children within the U. S. tended mostly to express just one type of gratitude, with a low probability of also expressing one or more types of gratitude concomitantly.

However, Brazilians in their home country showed a somewhat different pattern of gratitude expression compared to North Americans and Brazilians in the U. S., being more likely to express more than one type of gratitude at the same time. The implication of this should be further investigated. In other words, research should address whether it matters or not to express more than one type of gratitude at the same time and the relation of gratitude expressions with other variables.

Contrary to what I had expected, Brazilian children in the U. S. did not differ greatly from European American children in the expression of connective gratitude. However, although not hypothesized, when wishes were entered as predictors, Brazilian children in the U. S. were more likely to express verbal rather than concrete gratitude than were European Americans (and marginally more so than African Americans). Possible reasons for that may lie in the way verbal gratitude and reciprocation are viewed and valued across cultures. Also, it seems that, for children expressing more than one type of gratitude, the combination of connective or concrete gratitude with verbal gratitude is the most common pattern (especially for Brazilians). This

seems reasonable, given that verbally thanking is appreciated in many cultures and we learn young that thanks should be given (Freitas et al., 2011; Visser, 2009).

As suggested by La Taille (2000), politeness, such as in verbal gratitude, may be considered in two different ways; one related to a verbal convention used in social interactions (which does not necessarily represent sincere gratitude) and the other to a genuine feeling toward others. The latter would represent the genesis of morality. However, it is not possible to know whether children in the present study using verbal gratitude were simply showing manners required by societal norms or actually had an autonomous feeling toward the hypothetical benefactor. For instance, many children expressed gratitude verbally by saying “I would be forever grateful,” or “I would thank her a thousand times,” but we do not know what being forever grateful, for example, means to these children. Additionally, these meanings may vary from culture to culture. Thus, further investigations should address the reasons and meanings children express gratitude the way they do.

Furthermore, although not directly compared, Brazilians in their home country tended to express less concrete gratitude than did other children; as mentioned above, a similar trend was found for Brazilians in the United States, in relation to expressing more verbal than concrete gratitude. It seems that there is a tendency in which concrete gratitude is not as common for Brazilians in these samples, but verbal gratitude is. It is possible that with exposure to North American culture, Brazilian children in the United States are a little more likely to express concrete gratitude than are their counterparts in Brazil but still express more verbal instead of concrete gratitude than do European Americans.

The findings of the present study also indicated that children’s wishes were significantly associated with gratitude for some groups but in somewhat different ways. For African American children, the expression of verbal rather than concrete gratitude was less likely if children

expressed hedonistic and self-oriented wishes; this suggests that verbal gratitude for this group may preclude materialistic and self-oriented values. The fact that just a few children in both African American and Hispanic samples expressed social-oriented wishes was surprising; this may be due to the sample size and educational level, which was lower for these two groups. Thus, the findings that African American children expressing connective rather than concrete gratitude were less likely to wish for social-oriented wishes may not be reliable. Future research should include educational level and other indicators of social class in the analysis.

For European Americans, children expressing verbal instead of concrete gratitude were more likely to wish for self- and social-oriented wishes. Wang and colleagues (2015) also indicated an inverse relation between concrete gratitude and social-oriented wishes. Moreover, the finding regarding self-oriented wishes for European Americans is the opposite of what was found for African American children. It may be that self-oriented wishes have a different meaning across these groups; whereas for African Americans it may be related to self-centered values, for European Americans it may be linked to self-directedness. Again, the way self-directedness and autonomy are conceptualized may differ for these ethnic groups.

Alternatively, it may be that verbal gratitude for European Americans is linked less to self-centered values (e.g., increasing the likelihood of social-oriented wishes). However, the findings for this group also indicated that children were more likely to express hedonistic and self-oriented wishes when expressing verbal versus connective gratitude. An inverse relation between the expression of connective gratitude and hedonistic wishes was also found by Tudge, Freitas, Mokrova et al. (2015).

Although not significant, for Brazilians in the United States there was a tendency to be less likely to express hedonism when expressing connective rather than concrete gratitude (as expected), as well as a trend to express hedonistic wishes when expressing verbal rather than

connective gratitude (similarly to European Americans). Thus, connective gratitude may buffer hedonistic wishes for these groups, whereas self-oriented wishes appear to be linked to expressing verbal gratitude rather than other types of gratitude for European Americans.

Similar to what was found by Freitas et al. (2016), for Brazilians in their home country, hedonistic wishes were associated with the expression of more concrete than both verbal and connective gratitude. This supports the link between materialism and a self-centered way of expressing gratitude (concretely) and it is aligned with findings indicating that materialism is inversely associated with collective-oriented values (e.g., benevolence) (e.g., Burroughs & Rindfleisch, 2002). The other types of wishes did not seem to impact gratitude greatly for this group.

Overall, the expression of self- and social-oriented wishes seems to matter more for African Americans and European Americans than for Brazilians in the United States and in their home country; hedonism, however, was associated with children's expressions of gratitude for these groups, but in different ways. Specifically, expressing verbal rather than concrete gratitude was linked to a lower likelihood of expressing hedonistic wishes for African Americans; in contrast, a greater likelihood of expressing hedonistic wishes was found for European Americans expressing verbal rather than connective gratitude. For Brazilians, expressing hedonism was linked to a greater likelihood of expressing gratitude concretely rather than verbally or in a connective manner. This provides further support for the idea that verbal gratitude may have different meanings (La Taille, 2000).

Thus, one way to encourage connective gratitude for Brazilians and European Americans may be by encouraging less hedonistic wishes; that is, in general, it seems that hedonistic wishes preclude the expression of connective gratitude. For European Americans, however, it may be that the best way to encourage connective gratitude is by encouraging less hedonism and the

expression of gratitude beyond a simple “thank you.” Even though materialistic values (linked to hedonism) have been found to be detrimental to optimal outcomes (including gratitude), It is important to consider that children’s values are still developing (Freitas et al., 2016).

Finally, regarding parental values, heteronomy was associated with the expression of verbal rather than concrete gratitude for Hispanics and Brazilians in their home country. This may be related to the fact that parents who value their children following the norms of the society to a greater extent are also more likely to want their children to express their thanks verbally. This suggests that, at least for those groups, verbal gratitude may be linked to societal norms about what one should do when a benefit has been received. Interestingly, heteronomy was the only value that predicted any type of gratitude, contrary to what I had expected. As already discussed, these values may have different meanings across groups, and more investigation needs to be done.

In sum, although the study of gratitude has increasingly attracted scholars’ attention, little research has addressed children’s expressions of gratitude as a moral virtue, and even less has done so across different cultural groups. Most important, studies on gratitude conducted in the United States have greatly overlooked the ethnic diversity found in this country. In addition, even though the importance of parents for children’s gratitude has been recognized, there is no study addressing the relations between parents’ culturally derived values and children’s gratitude. Therefore, the present study contributes to advance the knowledge on cultural variation of the virtue of gratitude.

### **Limitations and Future Directions**

The present study makes a great contribution to the literature on gratitude by including the impact of cultural factors on moral-virtue gratitude. However, there are some limitations that should be addressed in future research. Specifically, the data used here were cross-sectional and,

therefore, causality cannot be assumed. Moreover, a possible bi-directional relation between gratitude expressions and children's and parents' values should be addressed; that is, it may be that gratitude expressions impact wishes, as well as parents' values.

Also, parental educational level and perhaps other SES indicators seem to be very important variables to be included. Thus, greater diversity in relation to SES should be considered, as well as other indicators of SES, such as income and job types, to untangle how those may impact children's expressions of gratitude. This is particularly important for certain immigrant groups, in which educational level may not be as confounded with SES as in other groups; this is also true for African Americans, in which parents with the same levels of education as European American parents do not have equal job opportunities. That is, it is possible that indicators such as job types are important to understand parental values, as suggested by Kohn (1977), and their relation to children's expressions of gratitude.

In addition, the sample size is not great, especially when broken down by ethnicities and parental educational level. This is especially complicated when gathering data from certain groups, such as well-educated Hispanic and African American, is challenging. This imposes some difficulties in untangling effects related to SES (e.g., parental educational level, job types, and income) and cultural values of a certain ethnic group. More work needs to be done to unravel these factors and how they impact gratitude. Also, the response rate was low (around 15% or lower), possibly because of the length of the parental values questionnaire sent home with consent forms.

Furthermore, more research should be conducted on both the meanings and reasons for children's expressions of gratitude, and the implications of expressing more than one type of gratitude concomitantly. That is, it is not possible to know whether children expressing more than one type of gratitude differ from children expressing just one type of gratitude, and the

reasons children consider important to express gratitude in specific ways. We are currently collecting data interviewing children and parents, which may help to understand some of these complexities.

Although the analyses conducted in this study advance the understanding of cultural diversity in relation to gratitude expression, the data from Brazilians in Brazil and North Americans (African Americans, European Americans, and Hispanics) were drawn from a single city in each of these two countries. Moreover, within-group variation was not addressed in the Brazilian sample, despite finding suggesting differences related to social class in this society (Merçon-Vargas et al., 2016; Tudge et al., in press). Further research should acknowledge within-group variability in Brazil, as well as include other cities and regions in these countries, given that Brazil and the U. S. are countries with great geographic and cultural variations; thus, one single city cannot be considered representative of this diversity.

Finally, the parental values used here need more investigation to understand their conceptualization and functionality. Moreover, we assessed how important parents consider these values to their children when they become adult, but we did not address parental practices related to these values. Kağıtçıbaşı (2007) suggested that parental practices may mediate values and the development of the self; future research should test these relations. Also, it is possible that children have yet to internalize some of these values parents hold; that is, it may be that children's values systems are developing, especially in relation to more complex values. However, the present study represents initial efforts to go beyond the dichotomy of individualism–collectivism and to test Kağıtçıbaşı's theory applied to parental socialization values.

Besides these limitations, the present research contributes greatly to advances in the understanding of gratitude across cultural groups. Some strengths of the present approach are the



inclusion of a diverse sample within the United States, also including a non-Western country, the acknowledgement of differences and similarities across these groups, the inclusion of both children's and parents' values in understanding gratitude, the conceptualization of gratitude as a moral virtue, and the innovative statistical approach to data analysis.

Using latent classes to understand how children express gratitude has some advantages, given that this method allows us to capture the complexities of expressing gratitude instead of isolating variables. It is, thus, a more holistic approach that focuses on a system of variables taken in combination rather than in separation. Also, it allows for the recognition of complex interactions among variables that would be difficult to detect using a variable-centered method (Bámaca-Colbert & Gayles, 2010; Meyer & Morin, 2016; Murdock & Miller, 2003).

Other advantages of this approach include prioritizing individuals in their context as the unit of analysis, recognizing processes, functions, and behavioral development specific to individuals. Contrary to the variable-centered approach, then, the focus is on patterns of factors among individuals and not among variables. Thus, this method seems to better capture the multidimensional reality of human development. A downside of this type of analysis may be unstable models that are highly dependent on specific samples being addressed (Bámaca-Colbert & Gayles, 2010; Meyer & Morin, 2016; Murdock & Miller, 2003).

### **Conclusions**

In conclusion, this study advances research on gratitude by considering it as a moral virtue rather than simple appreciation. It is also innovative because it includes a diverse sample drawn both from the United States and a non-Western country. Moreover, it goes beyond observed variables to try to understand some of the complexities of gratitude expression. Overall, the findings of the present study suggest that there is a different pattern of gratitude expression for Brazilians in Brazil, but not among ethnic groups in the United States (including Brazilian

children in the U. S.). Further research should explore the impacts of this difference and the implications of it.

Children's values were found to be related to the expression of gratitude for some groups, but there were differences and similarities in these associations. Hedonistic wishes were associated with less likelihood of expressing connective rather than verbal gratitude for European Americans. Hedonistic wishes were also associated with less likelihood of expressing connective and verbal rather than concrete gratitude for Brazilians. For African Americans, expressing verbal rather than concrete gratitude buffered the expression of hedonistic wishes. Overall, we see a pattern in which more ephemeral self-centered values (hedonism) are linked to possibly less sophisticated expressions of gratitude.

In general, more work needs to be done to understand parental cultural values in the context of socialization. Particularly, it is necessary to explore the meanings and purposes of encouraging certain values for parents across cultural groups. As for the findings here, heteronomous values were associated with the expression of verbal rather than concrete gratitude for Hispanics and Brazilians in their home country. This may be related to verbal gratitude being fundamentally based on societal norms. However, because this value was found to be positively associated with autonomy, calling into question Kağıtçıbaşı's (2007) theory, it is important to further investigate the relations between these values and gratitude, as well as to explore other possible values that may be associated with gratitude (e.g., benevolence and empathy).

## REFERENCES

- Achenreiner, G. B. (1997). Materialistic values and susceptibility to influence in children. *Advances in Consumer Research*, 24, 82-88. Retrieved from [www.acrwebsite.org/volumes/display.asp?id=8016](http://www.acrwebsite.org/volumes/display.asp?id=8016)
- Acosta, Y. D., & De la Cruz, G. P. (2011) *The foreign born from Latin America and the Caribbean: 2010*. Washington, DC: US Census Bureau.
- Adamsons, K., & Buehler, C. (2007). Mothering versus fathering versus parenting: Measurement equivalence in parenting measures. *Parenting*, 7, 271-304. doi: 10.1080/15295190701498686
- Aghababaei, N., & Tabik, M. T. (2013). Gratitude and mental health: Differences between religious and general gratitude in a Muslim context. *Mental Health, Religion & Culture*, 16, 761–766. doi: <http://dx.doi.org/10.1080/13674676.2012.718754>
- Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion*, 8, 425–429. doi: 10.1037/1528-3542.8.3.425
- Annas, J. (2011). *Intelligent virtue*. Oxford: Oxford University Press.
- Arnett, J. J. (2008). The neglected 95%: Why American psychology needs to become less American. *American Psychologist*, 63, 602-614. doi: 10.1037/0003-066X.63.7.602
- Baker, A. M., Moschis, G. P., Ong, F. S., & Pattanapanyasat, R.-P. (2013). Materialism and life satisfaction: The role of stress and religiosity. *The Journal of Consumer Affairs*, 47, 548-563. doi: 10.1111/joca.12013
- Bámaca-Colbert, M. Y., & Gayles, J. G. (2010). Variable-centered and person-centered approaches to studying Mexican-origin mother-daughter cultural orientation dissonance. *Journal of Youth and Adolescence*, 39, 1274-1292. doi: 10.1007/s10964-009-9447-3
- Banerjee, R., & Dittmar, H. (2008). Individual differences in children's materialism: The role of peer relations. *Personality and Social Psychology Bulletin*, 34, 17-31. doi: 10.1177/0146167207309196
- Bartlett, M. Y., & DeSteno, D. (2006). Gratitude and prosocial behavior: Helping when it costs you. *Psychological Science*, 17, 319-325. doi:10.1111/j.1467-9280.2006.01705.x

- Bassen, C. R., & Lamb, M. E. (2006). Gender differences in adolescents' self-concepts of assertion and affiliation. *European Journal of Developmental Psychology*, 3, 71-94. doi: 10.1080/17405620500368212
- Bauer, M. A., Wilkie, J. E. B., Kim, J. K., & Bodenhausen, G. V. (2012). Cuing consumerism: Situational materialism undermines personal and social well-being. *Psychological Science*, 23, 517-523. doi: 10.1177/0956797611429579
- Baumgarten-Tramer, F. (1938). "Gratefulness" in children and young people. *The Journal of Genetic Psychology*, 53, 53-66. doi: 10.1080/08856559.1938.10533797
- Becker, J. A., & Smenner, P. C. (1986). The spontaneous use of thank you by preschoolers as a function of sex, socioeconomic status, and listener status. *Language in Society*, 15, 537-545.
- Belk, R. W. (1983). Worldly possessions: Issues and criticisms. *Advances in Consumer Research*, 10.
- Belk, R. W. (1984). Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measures of happiness. *Advances in Consumer Research*, 11.
- Belk, R. W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, 12, 265-280.
- Betancourt, H., & Lopez, S. R. (1993). The study of culture, ethnicity, and race in American psychology. *The American Psychologist*, 48, 629. doi: <http://dx.doi.org.libproxy.uncg.edu/10.1037/0003-066X.48.6.629>
- Birman, D. (2006). Acculturation gap and family adjustment: Findings with Soviet Jewish refugees in the United States and implications for measurement. *Journal of Cross-Cultural Psychology*, 37, 568-589. doi:10.1177/0022022106290479
- Blázquez, J. F. D., & Bonás, M. C. (2013). Influences in children's materialism: A conceptual framework. *Young Consumers*, 14, 297-311. <http://dx.doi.org/10.1108/YC-03-2013-00346>
- Bonnie, K. E., & de Wall, F. B. M. (2004). Primate social reciprocity and the origin of gratitude. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 213-229). New York, NY: Oxford University Press.
- Bottomley, P. A., Nairn, A., Kasser, T., Ferguson, Y. L., & Ormrod, J. (2010). Measuring childhood materialism: Refining and validating Schor's Consumer Involvement Scale. *Psychology & Marketing*, 27, 717-740. doi: 10.1002/mar.20353

- Brabeck, K., & Xu, Q. (2010). The impact of detention and deportation on Latino immigrant children and families: A quantitative exploration. *Hispanic Journal of Behavioral Sciences*, 32, 341-361. doi: 10.1177/0739986310374053
- Brazilian Ministry of Foreign Affairs [Ministério de Relações Exteriores] (2015). *Brasileiros no mundo* [Brazilians in the world]. Retrieved from <http://www.brasileirosnomundo.itamaraty.gov.br/a-comunidade/estimativas-populacionais-das-comunidades/estimativas-populacionais-brasileiras-mundo-2014/Estimativas-RCN2014.pdf>
- Bronfenbrenner, U. (2000). Ecological systems theory. In A. E. Kazdin (Ed.), *The Encyclopedia of Psychology* (Vol. 3., pp. 129–133). Washington, DC: American Psychological Association.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.), *Handbook of child psychology: Theoretical models of human development* (Vol. 1, 6th ed., pp. 793-828). New York: John Wiley.
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29, 348-370.
- Cardoso, A. (2006). As atitudes materialistas das crianças e os valores procurados no vestuário. *Revista da Faculdade de Ciências Humanas e Sociais*, 3, 63-77. Retrieved from <http://bdigital.ufp.pt/bitstream/10284/591/1/63-77FCHS2006-8.pdf>
- Carlson, L., & Grossbart, S. (1988). Parental style and consumer socialization of children. *Journal of Consumer Research*, 15, 77-94.
- Carr, D. (2013). Varieties of gratitude. *Journal of Value Inquiry*, 47, 17-28. doi: 10.1007/s10790-013-9364-2
- Carr, D. (2015). Is gratitude a moral virtue? *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 172, 1475-1484. doi: 10.1007/s11098-014-0360-6
- Castro, F. M. P., Rava, P. G. S., Hoefelmann, T. B., Pieta, M. A. M., & Freitas, L. B. L. (2011). Deve-se retribuir? Gratidão e dívida simbólica na infância. *Estudos de Psicologia*, 16, 75-82. Retrieved from <http://www.scielo.br/pdf/epsic/v16n1/a10v16n1.pdf>
- Cebulko, K. (2014). Documented, undocumented, and liminally legal: Legal status during the transition to adulthood for 1.5-generation Brazilian immigrants. *The Sociological Quarterly*, 55, 143–167. doi:10.1111/tsq.12045
- Chan, K. (2003). Materialism among Chinese children in Hong Kong. *Young Consumers: Insight and Ideas for Responsible Marketers*, 4, 47-61. <http://dx.doi.org/10.1108/17473610310813988>

- Chan, K. (2013). Development of materialistic values among children and adolescents. *Young Consumers*, 14, 244-258. doi: 10.1108/YC-01-2013-00339
- Chan, K., Zhang, H., & Wang, I. (2006). Materialism among adolescents in urban China. *Young Consumers: Insight and Ideas for Responsible Marketers*, 7, 64-77.
- Chaplin, L. N., & John, D. R. (2005). Materialism in children and adolescents: The role of the developing self-concept. *Advances in Consumer Research*, 32, 219-220.
- Chaplin, L. N., & John, D. R. (2007). Growing up in a material world: Age differences in materialism in children and adolescents. *Journal of Consumer Research*, 34, 480-493. doi: 10.1086/518546
- Chaplin, L. N., & John, D. R. (2010). Interpersonal influences on adolescent materialism: A new look at the role of parents and peers. *Journal of Consumer Psychology*, 20, 176-184. doi:10.1016/j.jcps.2010.02.002
- Chen, L. H., Chen, M.-Y., Kee, Y. H., & Tsai, Y.-M. (2009). Validation of the gratitude questionnaire (GQ) in Taiwanese undergraduate students. *Journal of Happiness Studies*, 10, 655-664. doi: 10.1007/s10902-008-9112-7
- Chen, L. H., Chen, M.-Y., & Tsai, Y.-M. (2012). Does gratitude always work? Ambivalence over emotional expression inhibits the beneficial effect of gratitude on well-being. *International Journal of Psychology*, 47, 381-392. doi: <http://dx.doi.org/10.1080/00207594.2011.632009>
- Chen, L. H. & Kee, Y. H. (2008). Gratitude and adolescent athletes' well-Being. *Social Indicators Research*, 89, 361-373. doi: 10.1007/s11205-008-9237-4
- Clark, R. L., Glick, J. E., & Bures, R. M. (2009). Immigrant families over the life course: Research directions and needs. *Journal of Family Issues*, 30, 852-872. doi:10.1177/0192513X09332162
- Clark, R. L., & King, R. B. (2008). Social and economic aspects of immigration. *Annals of the New York Academy of Sciences*, 1136, 289-297. doi:10.1196/annals.1425.021
- Clarke, I., & Micken, K. S. (2002). An exploratory cross-cultural analysis of the values of materialism. *Journal of International Consumer Marketing*, 14, 4, 65-89. doi: 10.1300/J046v14n04\_05
- Clark, S. & Muthén, B. (2009). Relating latent class analysis results to variables not included in the analysis. Manuscript submitted for publication. Retrieved from <http://www.statmodel.com/download/relatinglca.pdf>.
- Coon, H. M., & Kemmelmeier, M. (2001). Cultural orientations in the United States: (Re)examining differences among ethnic groups. *Journal of Cross-Cultural Psychology*, 32, 348-364. doi:10.1177/0022022101032003006

- Crosnoe, R., & Fuligni, A. J. (2012). Children from immigrant families: Introduction to the special section. *Child Development*, 83, 1471-1476. doi:10.1111/j.1467-8624.2012.01785.x
- Csikszentmihalyi, M., & Rochberg-Halton, E. (1978). Reflections on materialism. *The University of Chicago Magazine*, 70, 6-15.
- Datu, J. A. D., & Mateo, N. J. (2015). Gratitude and life satisfaction among Filipino adolescents: The mediating role of meaning in life. *International Journal for the Advancement of Counselling*, 37, 198-206. doi: 10.1007/s10447-015-9238-3
- DeBiaggi, S. D. D. (2002). Brazilian emigration. In S. D. D. DeBiaggi (Ed.), *Changing gender roles: Brazilian immigrant families in the U.S.* (pp. 7-22). New York, NY: LFB Scholarly Pub.
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107, 879-924.
- Dittmar, H., & Pepper, L. (1994). To have is to be: Materialism and person perception in working-class and middle-class British adolescents. *Journal of Economic Psychology*, 15, 233-251. doi:10.1016/0167-4870(94)90002-7
- Do Vale, L. G. (2012) Desenvolvimento moral: A generosidade relacionada à justiça e à gratidão sob a ótica das crianças (Unpublished master thesis). Universidade de São Paulo, São Paulo.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84, 377-389. doi: 10.1037/0022-3514.84.2.377
- Emmons, R. A., & Stern, R. (2013). Gratitude as a psychotherapeutic intervention. *Journal of Clinical Psychology: In Session*, 69, 846-855. doi: 10.1002/jclp.22020
- Fagley, N. S. (2016). The construct of appreciation: It is so much more than gratitude. In D. Carr (Ed.), *Perspectives on gratitude: An interdisciplinary approach* (pp. 70-84). New York: Routledge.
- Flouri, E. (1999). An integrated model of consumer materialism: Can economic socialization and maternal values predict materialistic attitudes in adolescents? *Journal of Socio-Economics*, 28, 707-724.
- Flouri, E. (2001). The role of family togetherness and right-wing attitudes in adolescent materialism. *Journal of Socio-Economics*, 30, 363-365.

- Flouri, E. (2004). Exploring the relationship between mothers' and fathers' parenting practices and children's materialist values. *Journal of Economic Psychology*, 25, 743-752. doi:10.1016/j.joep.2003.06.005
- Flouri, E. (2007). The relationship between parenting and materialism in British mothers and fathers of secondary school age children. *Journal of Socio-Economics*, 36, 167-176. doi:10.1016/j.socec.2005.11.052
- Freitas, L. B. L., O'Brien, M., Nelson, J. A., & Marcovitch, S. (2012). A compreensão da gratidão e teoria da mente em crianças de 5 anos. *Psicologia: Reflexão e Crítica*, 25, 330-338. doi: <http://dx.doi.org/10.1590/S0102-79722012000200015>
- Freitas, L. B. L., Pieta, M. A. M., & Tudge, J. R. H. (2011). Beyond politeness: The expression of gratitude in children and adolescents. *Psicologia: Reflexão e Crítica*, 24, 757-764. doi: <http://dx.doi.org/10.1590/S0102-79722011000400016>
- Freitas, L. B. L., Silveira, P. G., & Pieta, M. A. M. (2009a). Um estudo sobre o desenvolvimento da gratidão na infância. *Revista Interamericana de Psicologia*, 43, 22-29. Retrieved from <http://pepsic.bvsalud.org/pdf/rip/v43n1/v43n1a06.pdf>
- Freitas, L. B. L., Silveira, P. G., & Pieta, M. A. M. (2009b). Sentimento de gratidão em crianças de 5 a 12 anos. *Psicologia em Estudo*, 14, 243-250. Retrieved from <http://www.scielo.br/pdf/pe/v14n2/v14n2a03.pdf>
- Freitas, L. B. L., Tudge, J. R. H., & McConnell, T. (2008). *The wishes and gratitude survey* (Unpublished Questionnaire). Greensboro, NC. (Adapted and expanded from Baumgarten-Tramer, 1938).
- Freitas, L. B. L., Tudge, J., Palhares, F., & Prestes, A. C. (2016). Relações entre desenvolvimento da gratidão e tipos de valores em jovens. *Psico-USF*, 21, 13-24. doi: <http://dx.doi.org/10.1590/1413-82712016210102>
- Froh, J. J., Bono, G., & Emmons, R. A. (2010). Being grateful is beyond good manners: Gratitude and motivation to contribute to society among early adolescents. *Motivation and Emotion*, 34, 144-157. doi: 10.1007/s11031-010-9163-z
- Froh, J. J., Emmons, R. A., Card, N. A., Bono, G., & Wilson, J. A. (2011). Gratitude and the reduced costs of materialism in adolescents. *Journal of Happiness Studies*, 12, 289-302. doi: 10.1007/s10902-010-9195-9
- Froh, J. J., Fan, J., Emmons, R. A., Bono, G., Huebner, E. S., & Watkins, P. (2011). Measuring gratitude in youth: Assessing the psychometric properties of adult gratitude scales in children and adolescents. *Psychological Assessment*, 23, 311-324. doi: 10.1037/a0021590
- Froh J. J., Kashdan, T. B., Ozimkowski, K. M., & Miller, N. (2009). Who benefits the most from a gratitude intervention in children and adolescents? Examining positive affect as a



- moderator. *The Journal of Positive Psychology*, 4, 408-422. doi: 10.1080/17439760902992464
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46, 213-233. doi:10.1016/j.jsp.2007.03.005
- Froh, J. J., Yurkewicz, C., & Kashdan, T. B. (2009). Gratitude and subjective well-being in early adolescence: Examining gender differences. *Journal of Adolescence*, 32, 633-650. doi:10.1016/j.adolescence.2008.06.006
- Fulgini, A. J. (2012). The intersection of aspirations and resources in the development of children from immigrant families. In C. T. García Coll & A. K. Marks (Eds.), *The immigrant paradox in children and adolescents: Is becoming American a developmental risk?* (pp. 299-307). Washington, DC: American Psychological Association  
<http://dx.doi.org/10.1037/13094-013>
- Geel, M., & Vedder, P. (2011). The role of family obligations and school adjustment in explaining the immigrant paradox. *Journal of Youth and Adolescence*, 40, 187-96. doi: 10.1007/s10964-009-9468-y
- Geiser, C., Lehman, W., & Eid, M. (2006). Separating rotators from nonrotators in the Mental Rotation Test: A multigroup latent class analysis. *Multivariate Behavioral Research*, 41, 261-293.
- Ger, G., & Belk, R. W. (1996). Cross-cultural differences in materialism. *Journal of Economic Psychology*, 17, 55-77.
- Ger, G., & Belk, R. W. (1990). Measuring and comparing materialism cross-culturally. *Advances in Consumer Research*, 17, 186-192.
- Global Atlanta Snapshots. (n.d.). *A look at ethnic communities in the Atlanta region: Brazilians*. Retrieved from [www.atlantaregional.com](http://www.atlantaregional.com)
- Goldberg, M. E., Gorn, G. J., Peracchio, L. A., & Bamossy, G. (2003). Understanding materialism among youth. *Journal of Consumer Psychology*, 13, 278-288. Retrieved from <http://www.jstor.org/stable/1480217>
- Gonzales, N. A., Germán, M., Kim, S. Y., George, P., Fabrett, F. C., Millsap, R., & Dumka, L. E. (2008). Mexican American adolescents' cultural orientation, externalizing behavior and academic engagement: The role of traditional cultural values. *American Journal of Community Psychology*, 41, 151-64. doi: 10.1007/s10464-007-9152-x
- Grieco, E. M., Acosta, Y. D., De la Cruz, G. P., Gambino, C., Gryn, T., Larsen, L. J. ... Walters, N. P. (2012). *The foreign-born population in the United States: 2010*. Washington, DC: U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau.

- Griffin, M., Babin, B. J., & Christensen, F. (2004). A cross-cultural investigation of the materialism construct: Assessing the Richins and Dawson's materialism scale in Denmark, France and Russia. *Journal of Business Research*, 57, 893-900.
- Gulliford, L., Morgan, B., & Kristjánsson, K. (2013). Recent work on the concept of gratitude in philosophy and psychology. *Journal of Value Inquiry*, 47, 285–317. doi: 10.1007/s10790-013-9387-8
- Guo, L., Stone, D., Bryant, S., Wier, B., Nikitkov, A., Ren, C., Riccio, E. L., ... Zhang, L. F. (2013). Are consumers' financial needs and values common across cultures? Evidence from six countries. *International Journal of Consumer Studies*, 37, 675-688. doi: 10.1111/ijcs.12047
- Guzzo, R. S. L. & Filho, A. E. (2005). Desigualdade social e sistema educacional brasileiro: A urgência da educação emancipadora. *Escritos sobre Educação*, 4, 39-48.
- Halberstadt, A. G., Langley, H. A., Hussong, A.M., Rothenberg, W. A., Coffman, J. L., Mokrova, I., & Costanzo, P. R. (2016). Parents' understanding of gratitude in children: A thematic analysis. *Early Childhood Research Quarterly*, 36, 439-451. doi: 10.1016/j.ecresq.2016.01.014.
- Harkness, S., Super, C. M., Bermúdez, M. R., Moscardino, U., Rha, J.-H., Mavridis, C. J., ... Zylics, P. O. (2010). Parental ethnotheories of children's learning. In D.F. Lancy, J. Bock, & S. Gaskins (Eds.), *The anthropology of learning in childhood*. Plymouth, United Kingdom: AltaMira Press.
- Harwood, R. L., Schoelmerich, A., Schulze, P. A., & Gonzalez, Z. (1999). Cultural differences in maternal beliefs and behaviors: A study of middle-class Anglo and Puerto Rican mother-infant pairs in four everyday situations. *Child Development*, 70, 1005-1016.
- Hernandez, D. J., & Napierala, J. S. (2012). *Children in immigrant families: Essential to America's future*. Foundation for Child Development, Child and Youth Well-Being Index (CWI), Policy Brief. Retrieved from [http://fcdus.org/sites/default/files/FINAL%20Children%20in%20Immigrant%20Families%20\(2\)\\_0.pdf](http://fcdus.org/sites/default/files/FINAL%20Children%20in%20Immigrant%20Families%20(2)_0.pdf)
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33, 61–135. doi:10.1017/S0140525X0999152X
- Hofstede, G. H. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2<sup>nd</sup> ed.). Beverly Hills, CA: Sage Publications (Original published in 1980).
- Hoy, B. D., Suldo, S. M., & Mendez, L. R. (2013). Links between parents' and children's levels of gratitude, life satisfaction, and hope. *Journal of Happiness Studies*, 14, 1343–1361. doi: 10.1007/s10902-012-9386-7

- Instituto Brasileiro de Geografia e Estatística (2010). Rio Grande do Sul, Porto Alegre. Retrieved from <http://cod.ibge.gov.br/6L0>
- John, D. R. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research. *Journal of Consumer Research*, 26, 183-213.
- Joseph, T. D. (2011). "My life was filled with constant anxiety." Anti-immigrant discrimination, undocumented status, and their mental health implications for Brazilian immigrants. *Race and Social Problems*, 3, 170-181. doi:10.1007/s12552-011-9054-2
- Kağıtçıbaşı, C. (2007). *Family, self, and human development across cultures: Theory and applications* (2<sup>nd</sup> ed.). Mahwah, NJ: Erlbaum.
- Kağıtçıbaşı, C. (2003). Autonomy, embeddedness and adaptability in immigration contexts. *Human Development*, 46, 145–150. doi: 10.1159/000068584
- Kağıtçıbaşı, C., & Ataca, B. (2005). Value of children and family change: A three-decade portrait from Turkey. *Applied Psychology: An International Review*, 54, 317–37. doi: 10.1111/j.1464-0597.2005.00213.x
- Kalil, A., & Crosby, D. (2010). Welfare leaving and the health of young children in immigrant and native families. *Social Science Research*, 39, 202-214. doi:10.1016/j.ssresearch.2009.08.002
- Kashdan, T. B., & Breen, W. E. (2007). Materialism and diminished well-being: Experiential avoidance as a mediating mechanism. *Journal of Social and Clinical Psychology*, 26, 521-539.
- Kasser, T. (2002). *The high price of materialism*. Cambridge, MA: MIT Press.
- Kasser, T. (2005). Frugality, generosity, and materialism in children and adolescents: In K. A. Moore & L. H. Lippman (Eds.), *What do children need to flourish? Conceptualizing and measuring indicators of positive development* (pp. 357-373). New York: Kluwer/Plenum.
- Kasser, T., & Kasser, V. G. (2001). The dreams of people high and low in materialism. *Journal of Economic Psychology*, 22, 6, 693-719.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality & Social Psychology*, 65, 410-422.
- Kasser, T., Ryan, R. M., Zax, M., & Sameroff, A. J. (1995). The relations of maternal and social environments to late adolescents' materialistic and prosocial values. *Developmental Psychology*, 31, 907-914. doi: <http://dx.doi.org.libproxy.uncg.edu/10.1037/0012-1649.32.6.1073>

- Keller, H. (2007). Relations among the dimensions of the parenting model. In H. Keller (Ed.), *Cultures of infancy* (pp. 218-226). Mahwah, N.J: Lawrence Erlbaum Associates.
- Keller, H., Lamm, B., Abels, M., Yovsi, R., Borke, J., Jensen, H., ... Chaudhary, N. (2006). Cultural models, socialization goals, and parenting ethnotheories: A multicultural analysis. *Journal of Cross-Cultural Psychology*, 37, 155–172. doi:10.1177/0022022105284494
- Kilbourne, W., Grünhagen, M., & Foley, J. (2005). A cross-cultural examination of the relationship between materialism and individual values. *Journal of Economic Psychology*, 26, 624-641. doi:10.1016/j.joep.2004.12.009
- Knight, G. P., Berkel, C., Umaña-Taylor, A. J., Gonzales, N. A., Ettekal, I., Jaconis, M., & Boyd, B. M. (2011). The familial socialization of culturally related values in Mexican American families. *The Journal of Marriage and Family*, 73, 913–925. doi: 10.1111/j.1741-3737.2011.00856.x
- Koh, J. B. K., Shao, Y., & Wang, Q. (2009). Father, mother and me: Parental value orientations and child self-identity in Asian American immigrants. *Sex Roles*, 60, 600–610. doi:10.1007/s11199-008-9550-z
- Kohn, M. L. (1977). *Class and conformity: A study in values* (2nd ed.). Chicago, IL: University of Chicago Press.
- Kristjánsson, K. (2013). An Aristotelian virtue of gratitude. *Topoi*. doi: 10.1007/s11245-013-9213-8.
- Kubacka, K. E., Finkenauer, C., Rusbult, C. E., & Keijsers, L. (2011). Maintaining close relationships: Gratitude as a motivator and a detector of maintenance behavior. *Personality and Social Psychology Bulletin*, 37, 1362–1375. doi: 10.1177/0146167211412196
- Kwak, K. (2003). Adolescents and their parents: A review of intergenerational family relations for immigrant and non-immigrant families. *Human Development*, 46, 115–136. doi:10.1159/000068581
- La Ferle, C. L., & Chan, K. (2008). Determinants for materialism among adolescents in Singapore. *Young Consumers: Insight and Ideas for Responsible Marketers*, 9, 201-214. <http://dx.doi.org/10.1108/17473610810901633>
- Lambert, N. M., Fincham, F. D., Stillman, T. F., & Dean, L. R. (2009). More gratitude, less materialism: The mediating role of life satisfaction. *The Journal of Positive Psychology*, 4, 32-42. doi: 10.1080/17439760802216311
- La Taille, Y. (2000). Para um estudo psicológico das virtudes morais. *Educação e Pesquisa*, 26, 109-122.

- La Taille, Y. (2001). Desenvolvimento moral: A polidez segundo as crianças. *Cadernos de Pesquisa*, 89-119. doi: <https://dx.doi.org/10.1590/S0100-15742001000300004>
- La Taille, Y. (in press). Towards a psychological study of the virtues. In J. R. H. Tudge & L. B. L. Freitas (Eds.), *Developing gratitude in children and adolescents*. London, UK: Cambridge University Press.
- Levine, R. V., Norenzayan, A., & Philbrick, K. (2001). Cross-cultural differences in helping strangers. *Journal of Cross-Cultural Psychology*, 32, 543–560. doi:10.1177/0022022101032005002
- Lima, A., Lee, J., Kim, C., Granberry, P., Resseger, M., Kang, K., & Wandrey, K. (2016). *Imagine all the people*. Boston, MA: Boston Redevelopment Authority, 2016. Retrieved from <http://www.bostonredevelopmentauthority.org/getattachment/ac4100df-475b-4aa8-b82c-f0f0b700337c>
- Marcus, A. P. (2009a). (Re)-creating places and spaces in two countries: Brazilian transnational migration processes. *Journal of Cultural Geography*, 26, 173–198. doi:10.1080/08873630903003672
- Marcus, A. P. (2009b). Brazilian immigration to the United States and the geographical imagination. *The Geographical Review*, 99, 481-4913. doi: 10.1111/j.1931-0846.2009.tb00443.x
- Marks, A. K., Godoy, C., & García Coll, C. (2013). An ecological approach to understanding immigrant child and adolescent developmental competencies. In E. T. Gershoff, R. S. Mistry, & D. A. Crosby (Eds.), *Societal contexts of child development: Pathways of influence and implications for practice and policy*. Oxford Scholarship Online. doi:10.1093/acprof:oso/9780199943913.001.0001
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253. doi: <http://dx.doi.org.libproxy.uncg.edu/10.1037/0033-295X.98.2.224>
- Marrow, H. (2003). To be or not to be (Hispanic or Latino): Brazilian racial and ethnic identity in the United States. *Ethnicities*, 3, 427–464. doi:10.1177/1468796803003004001
- McConnell, T. (1993). *Gratitude*. Philadelphia: Temple University Press.
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82, 112–127. doi: 10.1037//0022-3514.82.1.112
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127, 249-266. doi: 10.1037//0033-2909.127.2.249

- McCullough, M. E., Kimeldorf, M. B., & Cohen, A. D. (2008). An adaptation for altruism: The social causes, social effects, and social evolution of gratitude. *Current Directions in Psychological Science*, 17, 281-285. doi: 10.1111/j.1467-8721.2008.00590.x
- McDonnell, J., & Lourenço, L. (2009). You're Brazilian, right? What kind of Brazilian are you? The racialization of Brazilian immigrant women. *Ethnic and Racial Studies*, 32, 239. doi: 10.1080/01419870802361328
- Mendonça, S. E. (2015). *Is an understanding of moral obligation associated with the moral virtue gratitude?* (Unpublished master thesis). University of North Carolina at Greensboro, Greensboro.
- Menezes, C., Galvão, E., Fernandes, M., Souza, P. & Nascimento, S. (n.d.). *The Brazilian community in the state of Georgia*. Retrieved from [http://www.comunidadebrasileiradeatlanta.com/main/seminario\\_rj/Brazilians\\_in\\_Georgia.pdf](http://www.comunidadebrasileiradeatlanta.com/main/seminario_rj/Brazilians_in_Georgia.pdf)
- Merçon-Vargas, E. A., Pieta, M. A. M., Freitas, L. B. L., & Tudge, J. R. H. (2016). The wishes and gratitude of students from private and public schools. *Psico-USF*, 21, 651-662. doi: <http://dx.doi.org/10.1590/1413-82712016210317>
- Meyer, J. P., & Morin, A. J. S. (2016). A person-centered approach to commitment research: Theory, research, and methodology. *Journal of Organizational Behavior*, 37, 4, 584-612. doi: 10.1002/job.2085
- Millar, M., & Thomas, R. (2009). Discretionary activity and happiness: The role of materialism. *Journal of Research in Personality*, 43, 699-702. doi:10.1016/j.jrp.2009.03.012
- Morin, A.J.S., Meyer, J.P., Creusier, J., Bietry, F. (2015). Multiple-group analysis of similarity in latent profile solutions. *Organizational Research Methods*, 19, 231-254. doi: 10.1177/1094428115621148
- Moua, M. Y., & Lamborn, S. D. (2010). Hmong American adolescents' perceptions of ethnic socialization practices. *Journal of Adolescent Research*, 25, 416-440. doi:10.1177/0743558410361369
- Murdock, T. B., & Miller, A. (2003). Teachers as sources of middle school students' motivational identity: Variable-centered and person-centered analytic approaches. *The Elementary School Journal*, 103, 383-400.
- Muthén, L. K., & Muthén, B. O. (1998–2015). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Nelson, J. A., Freitas, L. B. L., O'Brien, M., Calkins, S. D., Leerkes, E. M., & Marcovitch, S. (2013). Preschool-aged children's understanding of gratitude: Relations with emotion and mental state knowledge. *British Journal of Developmental Psychology*, 31, 42-56. doi:10.1111/j.2044-835X.2012.02077.x

- Neto, F. (2007). Forgiveness, personality and gratitude. *Personality and Individual Differences*, 43, 2313-2323. doi:10.1016/j.paid.2007.07.010
- Nylund, K.L., Asparouhov, T., & Muthén, B. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling. A Monte Carlo simulation study. *Structural Equation Modeling*, 14, 535-569.
- Nylund-Gibson, K. & Masyn, K. (2016). Covariates and mixture modeling: Results of a simulation study exploring the impact of misspecified effects on class enumeration. *Structural Equation Modeling: A Multidisciplinary Journal*, 23, 782-797. doi: 10.1080/10705511.2016.1221313
- Office of Immigration Statistics, U.S. Department of Homeland Security. (2008). *Immigration enforcement actions: 2007*. Retrieved from [http://www.dhs.gov/xlibrary/assets/statistics/publications/enforcement\\_ar\\_07.pdf](http://www.dhs.gov/xlibrary/assets/statistics/publications/enforcement_ar_07.pdf)
- Otero-López, J. M., Pol, E. V., Bolaño, C. C., & Mariño, M. J. S. (2011). Materialism, life-satisfaction and addictive buying: Examining the causal relationships. *Personality and Individual Differences*, 50, 772-776. doi:10.1016/j.paid.2010.12.027
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta analyses. *Psychological Bulletin*, 128, 3-72. doi: 10.1037//0033-2909.128.1.3
- Paludo, S. (2008). *Emoções morais e gratidão: Uma nova perspectiva sobre o desenvolvimento de jovens que vivem em situação de risco pessoal e social*. (Unpublished doctoral dissertation). Universidade Federal do Rio Grande do Sul, Porto Alegre. Retrieved from <http://www.bibliotecadigital.ufrgs.br/da.php?nrb=000662150&loc=2008&l=4e33cb032de76579>
- Passel, J. S., & Cohn, D. (2011). Unauthorized immigrant population: National and state trends, 2010. *Pew Hispanic Center*, 202, 1–31. Retrieved from [www.pewhispanic.org](http://www.pewhispanic.org)
- Patel, N., Power, T. G., & Bhavinagri, N. P. (1996). Socialization values and practices of Indian immigrant parents: Correlates of modernity and acculturation. *Child Development*, 67, 302–313. doi:10.1111/j.1467-8624.1996.tb01735.x
- Phinney, J. S., Ong, A., & Madden, T. (2000). Cultural values and intergenerational value discrepancies in immigrant and non-immigrant families. *Child Development*, 71, 528–539. doi:10.1111/1467-8624.00162
- Piaget, J. (1995). *Sociological studies*. Genève: Droz. (Original published in 1965).
- Piaget, J. (1965). *The moral judgement of the child*. New York: Free Press. (Original published in 1932).



- Piaget, J., & Inhelder, B. (1969). *The psychology of the child*. New York: Basic Books. (Original published in 1966).
- Pieta, M. A. M. (2009). *A expressão do sentimento de gratidão: Um estudo com crianças e adolescentes escolares de Porto Alegre* (Unpublished master thesis). Universidade Federal do Rio Grande do Sul, Porto Alegre.
- Podoshen, J. S., Li, L., & Zhang, J. (2011). Materialism and conspicuous consumption in China: A cross-cultural examination. *International Journal of Consumer Studies*, 35, 17-25. doi: 10.1111/j.1470-6431.2010.00930.x
- Poelker, K. E., Gibbons, J. L., Hughes, H. M., & Powlishta, K. K. (2016). Feeling grateful and envious: Adolescents' narratives of social emotions in identity and social development. *International Journal of Adolescence and Youth*, 21, 289-303. doi: 10.1080/02673843.2015.1067895
- Polak, E. L., & McCullough, M. E. (2006). Is gratitude an alternative to materialism? *Journal of Happiness Studies*, 7, 343-360.
- Portes, A. & Rumbaut, R. G. (2014). *Immigrant America: A portrait* (4<sup>th</sup> ed.). Berkeley, CA: University of California Press.
- Prestes, A. C., Castro, F. M. P., Tudge, J. R. H., & Freitas, L. B. L. (2014). Desenvolvimento de valores em crianças e adolescentes. *Leopoldianum*, 40, 25-36.
- Prinz, J. (2009). The normativity challenge: Cultural psychology provides the real threat to virtue ethics. *Journal of Ethics*, 13, 117-144. doi: 10.1007/s10892-009-9053-3
- Raeff, C. (2010). Independence and interdependence in children's developmental experiences. *Child Development Perspectives*, 4, 31-36. doi: 10.1111/j.1750-8606.2009.00113.x.
- Raghavan, C. S., Harkness, S., & Super, C. M. (2010). Parental ethnotheories in the context of immigration: Asian Indian immigrant and Euro-American mothers and daughters in an American town. *Journal of Cross-Cultural Psychology*, 41, 617-632. doi:10.1177/0022022110362629
- Rash, J. A., Matsuba, M. K., & Prkachin, K. M. (2011). Gratitude and well-being: Who benefits the most from a gratitude intervention? *Applied Psychology: Health and Well-Being*, 3, 350-369. doi:10.1111/j.1758-0854.2011.01058.x
- Renshaw, T. L., & Steeves, R. M. O. (2016). What good is gratitude in youth and schools? A systematic review and meta-analysis of correlates and intervention outcomes. *Psychology in the Schools*, 53, 286-305. doi: 10.1002/pits.21903
- Richins, M. L. (1994). Special possessions and the expression of material values. *Journal of Consumer Research*, 21, 522-533.



- Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19, 303-316.
- Richins, M. L., & Rudmin, F. W. (1994). Materialism and economic psychology. *Journal of Economic Psychology*, 15, 2, 217-231.
- Roberts, C. R. Gratitude and humility (2016). In D. Carr (Ed.), *Perspectives on gratitude: An interdisciplinary approach* (pp. 57-69). New York, NY: Routledge.
- Roberts, J. A., Tsang, J. A., & Manolis, C. (2015). Looking for happiness in all the wrong places: The moderating role of gratitude and affect in the materialism–life satisfaction relationship. *The Journal of Positive Psychology*, 10, 489-498.
- Rothenberg, W. A., Hussong, A. M., Langley, H. A., Egerton, A. G., Coffman, J. L., Mokrova, I., & Costanzo, P. R. (2016). Grateful parents raising grateful children: Niche selection and the socialization of child gratitude. *Applied Developmental Science*, 1-15. doi: 10.10888691.2016.1175945.
- Rusk, R. D., Vella-Brodrick, D. A., & Waters, L. (2015). Components of appreciative functioning: A thematic analysis of relevant literature and content analysis of existing measurement scales. *Psychology of Well-Being*, 5, 1-20. doi 10.1186/s13612-015-0028-9
- Sabatier, C., & Berry, J. W. (2008). The role of family acculturation, parental style, and perceived discrimination in the adaptation of second-generation immigrant youth in France and Canada. *European Journal of Developmental Psychology*, 5, 159–185. doi:10.1080/17405620701608739
- Schaefer, R. T. (2004). Understanding race and ethnicity. In: R. T. Schaefer (Ed.). *Racial and Ethnic Groups* (pp. 3-35). Upper Saddle River, N.J.: Pearson Prentice Hall.
- Schaefer, A. D., Hermans, C. M., & Parker, R. S. (2004). A cross-cultural exploration of materialism in adolescents. *International Journal of Consumer Studies*, 28, 399-411.
- Schwartz, S. H. (2003). *A proposal for measuring value orientations across nations*. In the Questionnaire Development Report of the European Social Survey. Retrieved from [https://www.europeansocialsurvey.org/docs/methodology/core\\_ess\\_questionnaire/ESS\\_core\\_questionnaire\\_human\\_values.pdf](https://www.europeansocialsurvey.org/docs/methodology/core_ess_questionnaire/ESS_core_questionnaire_human_values.pdf)
- Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation: Implications for theory and research. *The American Psychologist*, 65, 237–251. doi:10.1037/a0019330
- Seidl-de-Moura, M. L., Carvalho R. V. C., & Vieira, M. L. (2013a). Brazilian mothers' cultural models: Socialization for autonomy and relatedness. In: M. L. Seidl-de-Moura (Ed.), *Parenting in South American and African Contexts*, InTech, doi: 10.5772/57083. Retrieved from <http://www.intechopen.com/books/parenting-in-south-american-and->

- Seidl-de-Moura, M. L., Lordelo, E., Vieira, M. L., Piccinnini, C. A., Siqueira, J. E O., Magalhães, C. M. C., ... Rimoli, A. (2008). Brazilian mothers' socialization goals: Intracultural differences in seven cities. *International Journal of Behavioral Development*, 32, 465-472. doi: 10.1177/0165025408093666
- Seidl-de-Moura, M. L., Mendes, D. M., L. F., Vieira, M. L., Korbarg, A. P., Pêssoa, L. F., & Bandeira, T. T. A. (2013b). Brazilian mothers' description of their children: Dimensions of autonomy and relatedness. *Psicologia: Teoria e Pesquisa*, 29, 249-255.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference* (pp. 64-82). Boston: Houghton Mifflin.
- Sheldon, K. M., & McGregor, H. A. (2000). Extrinsic value orientation and "the tragedy of the commons." *Journal of Personality*, 68, 383-411.
- Sheldon, K. M., Sheldon, M. S., & Osbaldiston, R. (2000). Prosocial values and group assortment: Within an N-person prisoner's dilemma game. *Human Nature*, 11, 387-404.
- Siqueira, E. C., & Jansen, T. (2012). Working conditions of Brazilian immigrants in Massachusetts. *Journal of Immigrant and Minority Health*, 14, 481-488. doi:10.1007/s10903-011-9488-z
- Solom, R., Watkins, P. C., McCurrach, D., & Scheibe, D. (2016). Thieves of thankfulness: Traits that inhibit gratitude. *The Journal of Positive Psychology*, 1-10. doi: 10.1080/17439760.2016.1163408
- Stein, G. L., Cupito, A., Mendez, J. L., Prandoni, J., Huq, N., & Westerberg, D. (2014). Familism through a developmental lens. *Journal of Latina/o Psychology*, 2, 224-250. doi:10.1037/lat0000025
- Strauss, C. (2000). The culture concept and the individualism-collectivism debate: Dominant and alternative attributions for class in the United States. In L. P. Nucci, G. B. Saxe, & E. Turiel (Eds.), *Culture, thought, and development* (pp. 85-114). Mahwah, NJ: Lawrence Erlbaum Associates.
- Strough, J. & Berg, C. A. (2000). Goals as a mediator of gender differences in high-affiliation dyadic conversations. *Developmental Psychology*, 36, 117-125. doi: 10.1037//C012-1649.36JJ17
- Suárez-Orozco, C., & Yoshikawa, H. (2013). Undocumented status: Implications for child development, policy, and ethical research. In M. G. Hernández, J. Nguyen, C. L. Saetermoe, & C. Suárez-Orozco (Eds.), *Frameworks and ethics for research with immigrants. New directions for child and adolescent development* (pp. 61-78), 141.

- Suizzo, M. A. (2007). Parents' goals and values for children: Dimensions of independence and interdependence across four U.S. ethnic groups. *Journal of Cross-Cultural Psychology*, 38, 506–530. doi:10.1177/0022022107302365
- Sun, P., & Kong, F. (2013). Affective mediators of the influence of gratitude on life satisfaction in late adolescence. *Social Indicators Research*, 114, 1361–1369. doi: 10.1007/s11205-013-0333-8
- Swartz, J. A. (2016). A Multi-group latent class analysis of chronic medical conditions among men who have sex with men. *Aids and Behavior*, 20, 2418–2432. doi: 10.1007/s10461-016-1381-2
- Tamis-LeMonda, C. S., Way, N., Hughes, D., Yoshikawa, H., Kalman, R. K., & Niwa, E. Y. (2008). Parents' goals for children: The dynamic coexistence of individualism and collectivism in cultures and individuals. *Social Development*, 17, 183–209. doi: 10.1111/j.1467-9507.2007.00419.x
- Tatzel, M. (2002). "Money worlds" and well-being: An integration of money dispositions, materialism and price-related behavior. *Journal of Economic Psychology*, 23, 103–126.
- Telzer, E. H. (2010). Expanding the acculturation gap-distress model: An integrative review of research. *Human Development*, 53, 313–340. doi: 10.1159/000322476
- Tiberius, V. (2004). Cultural differences and philosophical accounts of well-being. *Journal of Happiness Studies*, 5, 293–314. doi: 10.1007/s10902-004-8791-y
- Tognetta, L. R. P., & La Taille, Y. (2008). A formação de personalidades éticas: Representações de si e moral. *Psicologia: Teoria e Pesquisa*, 24, 181–188. <https://dx.doi.org/10.1590/S0102-37722008000200007>
- Triandis, H. C. (1989). The self and social behavior in different cultural contexts. *Psychological Review*, 96, 506–520. doi: <http://dx.doi.org.libproxy.uncg.edu/10.1037/0033-295X.96.3.506>
- Triandis, H. C. (1993). Collectivism and individualism as cultural syndromes. *Cross-Cultural Research*, 27, 155–180. doi: 10.1177/106939719302700301
- Triandis, H. C. (2001). Individualism-collectivism and personality. *Journal of Personality*, 69, 907–924. doi: 10.1111/1467-6494.696169
- Tsai, K. M., Park, H., Liu, L. L., & Lau, A. S. (2012). Distinct pathways from parental cultural orientation to young children's bilingual development. *Journal of Applied Developmental Psychology*, 33, 219–226. doi: <http://dx.doi.org/10.1016/j.appdev.2012.07.002>
- Tsang, J.-A., Carpenter, T. P., Roberts, J. A., Frisch, M. B., & Carlisle, R. D. (2014). Why are materialists less happy? The role of gratitude and need satisfaction in the relationship

- between materialism and life satisfaction. *Personality & Individual Differences*, 64, 62-66. doi: <http://dx.doi.org/10.1016/j.paid.2014.02.009>
- Tomlinson, M., & Swartz, L. (2003). Imbalances in the knowledge about infancy: The divide between rich and poor countries. *Infant Mental Health Journal*, 24, 547–556. doi: 10.1002/imhj.10078
- Tudge, J. R. H. (2008). *The everyday lives of young children: Culture, class, and child rearing in diverse societies*. New York, NY: Cambridge University Press.
- Tudge, J. R. H., Doucet, F., Otero, D., Sperb, T., Piccinini, C., & Lopes, R. S. (2006). A window into different cultural worlds: Young children's everyday activities in the United States, Kenya, and Brazil. *Child Development*, 77, 1446-1469.
- Tudge, J. R. H., & Freitas, L. B. L. (2015, January). *The development of the virtue of gratitude in different societies*. Presented at the Varieties of Virtue Ethics Conference, Oriel College, Oxford. Retrieved from <http://cds.web.unc.edu/files/2015/02/Paper-Tudge-Freitas-11-29-2014.pdf>
- Tudge, J. R. H., Freitas, L. B. L., Mokrova, I. L., Wang, Y. C., & O'Brien, M. (2015). Children's wishes and their expression of gratitude. *Paidéia*, 25, 281-288. doi: <https://dx.doi.org/10.1590/1982-43272562201501>
- Tudge, J. R. H., Freitas, L. B. L., & O'Brien, L. T. (2015). The virtue of gratitude: A developmental and cultural approach. *Human Development*, 58, 281-300. doi: 10.1159/000444308
- Tudge, J. R. H., Hogan, D. M., Snezhkova, I. A., Kulakova, N. N., & Etz, K. E. (2000). Parents' child-rearing values and beliefs in the United States and Russia: The impact of culture and social class. *Infant and Child Development*, 9, 105-121.
- Tudge, J. R. H., Lopes, R. S. C., Piccinini, C. A., Sperb, T. M., Chipenda-Dansokho, S., Marin, A. H., ... Freitas, L. B. L. (2012). Child-rearing values in Southern Brazil: Mutual influences of social class and parents' perceptions of their children's development. *Journal of Family Issues*, 34, 1379-1400. doi:10.1177/0192513X12453820
- Tudge, J., Martins, G., Merçon-Vargas, E., Dellazzana-Zanon, L., Piccinini, C., & Freitas, L. (in press). Children, families, and communities in Brazil: A cultural-ecological approach to child-rearing values and practices. In M. Fleer & B. von Oers (Eds.) *International handbook on early childhood education*. New York: Springer.
- Umaña-Taylor, A. J., Alfaro, E. C., Bámaca, M. Y., & Guimond, A. B. (2009). The central role of familial ethnic socialization in Latino adolescents' cultural orientation. *Journal of Marriage and Family*, 71, 46–60. doi:10.1111/j.1741-3737.2008.00579.x

- United Nations Development Programme [UNDP] (2009). *Human development report 2009. Overcoming barriers: Human mobility and development*. New York, NY: Palgrave Macmillan.
- United States Census Bureau (2010, 2014). *State and County QuickFacts—Grensboro (city), North Carolina*. Retrieved from <http://quickfacts.census.gov/qfd/states/37/3728000.html>
- Vargas, M. L. F. (2009). Estudos sobre o funcionamento do sistema de ensino: Da reprodução das desigualdades sociais ao efeito escola. *Cadernos de Educação*, 32, 105-122. Retrieved from <http://periodicos.ufpel.edu.br/ojs2/index.php/caduc/article/viewFile/1682/1563>
- Vermunt, J. K. (2010). Latent class modeling with covariates: Two improved three-step approaches. *Political Analysis*, 18, 450-469. doi:10.1093/pan/mpq025
- Vieira, M. L., Seidl-de-Moura, M. L., Lordelo, E., Piccinini, C. A., Martins, G. D. F., Macarini, S. M., Moncorvo, M. C. R., ... Rimoli, A. O. (2010). Brazilian mothers' beliefs about child-rearing practices. *Journal of Cross-Cultural Psychology*, 41, 195-211. doi: 10.1177/0022022109354642
- Visser, M. (2009). *The gift of thanks: The roots and rituals of gratitude*. Boston, MA: Houghton-Mifflin.
- Wang, D., Wang, Y. C., & Tudge, J. R. H. (2015). Expressions of gratitude in children and adolescents: Insights from China and the United States. *Journal of Cross-Cultural Psychology*, 46, 10-39. doi: 10.1177/0022022115594140
- Watkins, P. C., Woodward, K., Stone, T., & Kolts, R.L. (2003). Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective wellbeing. *Social Behavior and Personality*, 31, 431-452. doi: 10.2224/sbp.2003.31.5.431
- Watson, D. C. (2015). Self-conscious emotions and materialism. *Imagination, Cognition, and Personality*, 35, 190-210. doi: 10.1177/0276236615587492
- Wood, A. M., Froh, J. J., & Geraghty, A. W.A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, 30, 890-905. doi:10.1016/j.cpr.2010.03.005
- Wood, A. M., Joseph, S., & Maltby, J. (2008). Gratitude uniquely predicts satisfaction with life: Incremental validity above the domains and facets of the five factor model. *Personality and Individual Differences*, 45, 49-54. doi:10.1016/j.paid.2008.02.019
- Wood, A. M., Maltby, J., Gillett, R., Linley, P. A., & Joseph, S. (2008). The role of gratitude in the development of social support, stress, and depression: Two longitudinal studies. *Journal of Research in Personality*, 42, 854-871. doi:10.1016/j.jrp.2007.11.003

Zago, N. (2006). Do acesso à permanência no ensino superior: Percursos de estudantes universitários de camadas populares. *Revista Brasileira de Educação*, 11, 226-337. doi: <http://dx.doi.org/10.1590/S1413-24782006000200003>

Zubaran, C. (2008). The quest for recognition: Brazilian immigrants in the United States. *Transcultural Psychiatry*, 45, 590–610. doi:10.1177/1363461508100784

## APPENDIX A

### RASH QUESTIONNAIRE

We would like to know which of the following characteristics are important for your child **when he or she has become an adult**. There are no right or wrong answers. We need your personal opinion. Please look at the questions in the table below, and answer each question, one by one, giving your response from 1 to 9. Your choices are:

- 1 = Absolutely Not Important (ANI);
- 2
- 3 = A Little Important (ALI);
- 4
- 5 = Quite Important (QI);
- 6
- 7 = Important (I);
- 8
- 9 = Supremely Important (SI).

For example, if you value a characteristic between 7 (Important) and 9 (Supremely Important) you can mark 8; if you can't decide between 5 (Quite Important) and 7 (Important) you can mark 6.

<b>For each of the following questions, please respond from 1 (Absolutely Not Important) to 9 (Supremely Important)</b>	<b>1 ANI</b>	<b>2</b>	<b>3 ALI</b>	<b>4</b>	<b>5 QI</b>	<b>6</b>	<b>7 I</b>	<b>8</b>	<b>9 SI</b>
<b>How important is it that your child, when an adult...</b>									
A. ... <i>follows the norms of society?</i>	1	2	3	4	5	6	7	8	9
B. ... <i>does what he or she thinks should be done, regardless of what others will think?</i>	1	2	3	4	5	6	7	8	9
C. ... <i>tries to reach his or her goals without anyone else's help?</i>	1	2	3	4	5	6	7	8	9
D. ... <i>prefers to spend time alone rather than with others?</i>	1	2	3	4	5	6	7	8	9
E. ... <i>fulfills his or her work-related duties without question?</i>	1	2	3	4	5	6	7	8	9
F. ... <i>likes to live without many ties to others?</i>	1	2	3	4	5	6	7	8	9
	<b>1 ANI</b>	<b>2</b>	<b>3 ALI</b>	<b>4</b>	<b>5 QI</b>	<b>6</b>	<b>7 I</b>	<b>8</b>	<b>9 SI</b>
G. ... <i>cares for the well-being of others?</i>	1	2	3	4	5	6	7	8	9
H. ... <i>does things in traditional ways?</i>	1	2	3	4	5	6	7	8	9
I. ... <i>does the things that other people expect of him or her?</i>	1	2	3	4	5	6	7	8	9

J. ... maintains good relationships with many people?	1	2	3	4	5	6	7	8	9
K. ... cares about others' feelings?	1	2	3	4	5	6	7	8	9
L. ... tries not to depend on someone else to achieve his or her goals?	1	2	3	4	5	6	7	8	9
M. ... chooses his or her own goals?	1	2	3	4	5	6	7	8	9
N. ... prefers to live alone?	1	2	3	4	5	6	7	8	9
O. ... typically decides on a course of action without help from others?	1	2	3	4	5	6	7	8	9
P. ... obeys people in authority?	1	2	3	4	5	6	7	8	9
Q. ... feels close to many people?	1	2	3	4	5	6	7	8	9
R. ... takes advice from parents or other family members before making decisions?	1	2	3	4	5	6	7	8	9
S. ... keeps personal issues to himself or herself?	1	2	3	4	5	6	7	8	9
T. ... is loyal to his or her friends?	1	2	3	4	5	6	7	8	9
U. ... makes decisions about what to do without being influenced by others' opinions?	1	2	3	4	5	6	7	8	9
V. ... feels well connected to other people?	1	2	3	4	5	6	7	8	9
W. ... always does what his or her family wants?	1	2	3	4	5	6	7	8	9
X. ... prefers to live his or her own life separate from others?	1	2	3	4	5	6	7	8	9
Y. ... is not emotionally dependent on others?	1	2	3	4	5	6	7	8	9
Z. ... is well connected to the extended family (grandparents, aunts, cousins, etc.)?	1	2	3	4	5	6	7	8	9
AA. ... feels no need to keep in touch with other people?	1	2	3	4	5	6	7	8	9
BB. ... is concerned about his or her friends' well-being?	1	2	3	4	5	6	7	8	9
CC. ... avoids doing things that other people say are wrong?	1	2	3	4	5	6	7	8	9
DD. ... conducts his or her life in accordance with his or her own convictions?	1	2	3	4	5	6	7	8	9

Now, of all of those characteristics that you've marked above, please choose the three that are MOST important, in your opinion.

Which of those three is absolutely most important to you? \_\_\_\_ (put its letter)

Which are the other two that are also very important? \_\_\_\_ and \_\_\_\_

Choose also the three characteristics that are LEAST important to you

Which of these three is absolutely least important to you? \_\_\_\_ (put its letter)

Which other two are also very unimportant? \_\_\_\_ and \_\_\_\_